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**UNITED STATES DEPARTMENT OF LABOR  
BUREAU OF LABOR STATISTICS**

**Vol. 33, No. 5**

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**MONTHLY  
LABOR REVIEW**



**SPECIAL FEATURES IN THIS ISSUE**

**Effects of technological changes upon employment in motion-picture theaters, Washington, D. C., p. 1**

**Elapsed time in building construction, p. 15**

**Accident experience in iron and steel industry to end of 1930, p. 25**

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**UNITED STATES DEPARTMENT OF LABOR**

W. N. DOAK, Secretary

**BUREAU OF LABOR STATISTICS**

ETHELBERT STEWART, Commissioner

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MONTHLY

# LABOR REVIEW

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### This Issue in Brief

*The introduction of mechanical music in motion pictures* resulted in the displacement of 108 musicians, or 60 per cent of the total, in the white theaters of Washington, D. C., and of 21, or 91 per cent of the total, in the colored theaters of that city. On the other hand, the number of motion-picture-machine operators has remained about the same since the installation of sound equipment (p. 1).

*About 1 per cent of building permits issued are allowed to lapse*, these representing about 2.2 per cent of the estimated cost of the buildings covered by all permits, according to a study made by the Bureau of Labor Statistics in 10 cities and covering all permits for new buildings issued in 1929 except those for private garages, sheds, stables, and barns. This study also showed that the average time elapsing between the issuance of the permit and the beginning of work was 6.6 days (p. 15).

*Accident rates in the iron and steel industry for 1930 show a return to the downward trend.* The frequency rates, which had advanced from 19.7 in 1928 to 25.1 in 1929, dropped to 18.6 in 1930, lower than for any previous year. The severity rate, which had reached its lowest level of 2.2 in 1928, but had risen to 2.6 in 1929, declined to 2.5 in 1930. A decided contrast is shown by the comparison of present rates with the rates for 1907, when the frequency rate was 80.8 and the severity rate 7.2 (p. 25).

*Union wage rates per hour in time-work trades were slightly higher, on the average, on May 15, 1931, than on the same date in 1930*, and were higher than in any preceding year. The annual survey of union scales of wages and hours of labor by the Bureau of Labor Statistics shows that, for all trades covered, the average rate was \$1.254 in 1931 as compared with \$1.25 in 1930, an increase of 0.4 cent. Of the 69 individual time-work trades covered by the survey, 45 showed increases in rates, 23 showed decreases, and 1 remained unchanged. Average full-time working hours per week declined from 43.9 in 1930 to 43.6 in 1931. Figured on a weekly basis, union wage rates in time-work trades have not increased to the same extent that hourly rates have, because of reductions in working hours (p. 184).

*Average hourly wages in two departments of the iron and steel industry—blast furnaces and Bessemer converters—showed an increase on March 31, 1931, over the rates paid in March, 1929*, according to the latest biennial survey made by the Bureau of Labor Statistics of wages in that industry. The rate for blast furnaces was 55.1 cents in 1931 and 52.8 in 1929 and in Bessemer converters, 66.4 cents in 1931 and 64.3 in 1929. A slight reduction was shown for open-hearth furnaces, in which the rate on March 31, 1931, was 70.3 cents as compared with 71.4 cents in March, 1929. Average weekly earnings in both blast furnaces and open-hearth furnaces were lower in 1931 than in 1929, while in Bessemer converters they were higher. Reductions took place in average full-time hours per week in all three departments between 1929 and 1931: In blast furnaces, from 60.7 to 57.2; in Bessemer converters, from 53.7 to 53.3; and in open-hearth furnaces, from 57.7 to 53.8. (p. 179).

*The stabilization program drafted by a committee of the United States Chamber of Commerce proposes that the antitrust laws be revised, that a national economic council be set up, and that individual business operations plan ahead and thus aid in regularizing production and employment. The further suggestion is made that individual companies set up reserves out of which benefits might be paid in periods of unemployment (p. 43).*

*An emergency unemployment-relief plan for the coming winter was adopted at the recent convention of the American Federation of Labor. The measures suggested are: Maintaining wages, shortening working hours, assured employment, extension of employment and public work, strengthening employment agencies, keeping children in school, giving preference to persons with dependents in filling positions, and giving financial relief from public and private funds (p. 40).*

*A plan for the stabilization of industry through the coordination of production and consumption was proposed in September by Gerard Swope, president of the General Electric Co. The plan provides for production planning, for the organization of industries in trade associations under Federal supervision, and the establishment of life, disability, and unemployment insurance, and pensions, under provisions which would allow workers to change employment without forfeiting their insurance rights (p. 45).*

*A survey of the work of mutual-benefit associations has been made recently for the purpose of ascertaining what is done for members beyond the simple payment of benefits in the case of sickness. Only a small fraction of the 315 associations forming the basis of the report were found to be making any attempt to improve health conditions among their members although there is evidently some tendency to develop new fields of usefulness through the provision of better surgical and medical care and the institution of preventive measures (p. 75).*

*The serious shortage of houses in Europe resulting from war and postwar conditions led many countries to undertake various forms of Government aid to stimulate the building of needed homes for their working populations. Financial aid has been given principally in the form of money subsidies and credit facilities. A comprehensive report on the subject is summarized in an article beginning on page 153.*

# MONTHLY LABOR REVIEW

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## **Effects of Technological Changes Upon Employment in the Motion-Picture Theaters of Washington, D. C.**

**I**N THE August issue of the Labor Review, the Bureau of Labor Statistics published a general report on the effects of technological changes upon the employment situation in the amusement industry, the information for which was secured chiefly by means of interviews with the leading representatives of employers and labor unions connected with the amusement industry. The introduction of sound in the motion-picture theaters, it was found, has proved to be the most revolutionary development in the recent history of the industry. The change from silent to sound pictures, it was also shown, affected primarily two groups of workers employed in the theaters—the motion-picture-machine operators, whose conditions of employment have been greatly improved by the innovation, and the musicians, more than 50 per cent of whom have been displaced by the introduction of the so-called “canned” music.

The present article contains a survey of the present employment situation in the motion-picture theaters in Washington, D. C., together with an analysis of the changes in employment caused by the installation of sound equipment in these theaters. Washington was selected for a sample study because of the belief that this city has been affected less than any other city of its size by the business depression, and it would, therefore, be possible to segregate the effects brought about by changes in technology from those due to other causes and especially to the depression. Another reason for selecting Washington was the fact that all the motion-picture theaters in this city have installed sound equipment, thus making it possible to study the complete effects of the change.

### **Employment Situation in Motion-Picture Theaters**

AT THE time of this investigation there were 50 motion-picture theaters operated in the city of Washington, 38 for white people and 12 for colored people only. For the purpose of this survey, and because of the variation in the type and number of employees in the different theaters, the white theaters have been segregated into five distinct groups: Group 1 covers the 3 down-town de luxe presentation houses which in addition to the regular motion picture have a vaudeville feature, as well as an occasional concert by the orchestra. The average capacity of these theaters is 2,680 seats. Group 2 consists of the 5 down-town first-class straight-picture houses, with an average capacity of 1,475 seats. Group 3 comprises the 5 smaller down-



town straight-picture theaters with an average capacity of 296 seats. Group 4 covers 11 first-class neighborhood straight-picture houses, with an average capacity of 1,016 seats, and group 5 comprises the remaining 12 neighborhood straight-picture houses, with an average capacity of 421 seats. In addition to these 36 theaters, which have either continuous daily performances or night performances only, there are two other theaters for white people which give performances only twice a week. These theaters were omitted from the present classification.

The 12 colored theaters have been divided into two groups, group 1 representing 5 first-class picture houses, with 500 seats or more and averaging 835 seats for the group, and group 2 the remaining 7 colored theaters, with an average capacity of 302 seats.

Table 1 gives a statistical analysis of the number and type of labor employed in the seven groups of theaters. The employees are segregated according to the branch of work in which they are engaged, as well as by their special occupations. The table gives the total number of the various types of employees in the entire group, their average weekly hours and wages, and their average wages per hour.

The 3 down-town de luxe presentation houses average 82 employees per theater; the 5 down-town first-class straight-picture theaters, 28 $\frac{3}{4}$  employees; the 5 smaller down-town straight-picture theaters, 7 $\frac{1}{2}$  employees; the 11 first-class neighborhood straight-picture houses, 10 $\frac{7}{11}$  employees; the remaining neighborhood straight-picture houses, 5 $\frac{5}{12}$  employees. The 5 first-class colored theaters average 11 $\frac{3}{4}$  employees per theater, and the 7 smaller colored theaters 6 $\frac{3}{4}$  employees. The total number of employees, exclusive of management, is 607 men and women for the white theaters and 103 for the colored theaters.

All employees are divided into the following occupational branches: (a) Service, which includes cashiers, doormen, ushers, pages, matrons, porters, cleaners, elevator operators, etc.; (b) projection, consisting of the chief operator and the motion-picture-machine operators; (c) music, consisting of the leader and the orchestra, including the organists; (d) stage employees, consisting of electricians, stage carpenters, property men, flymen, and others; (e) maintenance, consisting of engineers, repair men, firemen, watchmen, etc.; and (f) miscellaneous, such as poster artists, publicity men, etc. Not all the theaters in Washington employ all the groups of workers enumerated above. The only two branches of work which may be found in each of the 50 theaters in Washington are "service," particularly cashiers and doormen, and "projection"—motion-picture-machine operators.

From the point of view of weekly or hourly wages all the employees in the Washington theaters may be divided into two distinct classes: (1) Organized workers, among whom are to be found the motion-picture-machine operators, the musicians, and the stage hands; and (2) unorganized workers, comprising all other employees in the theater. The wages and hours of the first group are determined by collective agreements between the motion-picture-theater owners and the corresponding trade-union organizations. The stage hands who are employed in the motion-picture theaters have a 48-hour week, with an average weekly salary of about \$70. The musicians have a 42-hour week spread over 7 days, with an average weekly

salary of from \$75 to \$90. The motion-picture-machine operators have a general 40-hour week in all the theaters with a scale of weekly wages varying from a minimum of about \$40 per week for the smaller neighborhood theaters to a minimum of \$85 a week in the larger downtown theaters.

The hours and wages of the unorganized employees in the theater vary with the type of theater, as well as with the nature of the service performed. In the de luxe theaters the wages of the unorganized employees range from \$9.24 per week for the part-time ushers, averaging 32.4 hours per week, to \$22.33 per week for the day and night doormen, with an average of 54.2 hours per week. The average hourly rates vary from about 28 cents per hour for the elevator boys to 56 cents per hour for the permanent cashiers.

In the down-town first-class straight-picture theaters the average weekly wages vary from \$8 for 24 hours' work by the relief cashiers to \$21.15 for an average of 51.7 hours' work per week by the doormen. The hourly wages vary from a little less than 31 cents per hour for the part-time ushers to a little over 53 cents per hour for the permanent cashiers.

In the smaller down-town straight-picture theaters the weekly wages vary from \$11.70 for 24.4 hours' work by the porters to \$20 for the doormen, who average 62.5 hours per week. The hourly wages vary from a little over 30 cents for the cashiers to slightly less than 48 cents per hour for the porters.

In the first-class neighborhood straight-picture houses the weekly wage varies from \$6.65 for an average of 12.3 hours' work per week by the relief cashiers to an average of \$18.40 earned by the porters for an average of 54.6 hours per week. The hourly rates vary from 28.5 cents for the full-time ushers to 54 cents for the relief cashiers. In the smaller neighborhood picture houses the weekly wages vary from \$8.85 for an average of 33.5 hours' work per week by the ushers to \$13.63 per week for 43.5 hours' work by the porters. The hourly rate varies from about 26.5 cents for the ushers to about 32.5 cents for the cashiers.

With the exception of four or five colored theaters whose motion-picture-machine operators are organized under the sponsorship of the white local as an auxiliary organization, no employees in these theaters belong to a labor organization. In the 5 first-class colored theaters the weekly wages vary from an average of \$9.50 for 48 hours' work by the cleaners to an average of \$47.33 earned by the chief motion-picture-machine operators for 56 hours' work. The hourly rates vary from slightly less than 20 cents per hour for the cleaners to slightly over 89 cents per hour for the organists. In the smaller colored theaters the weekly wage varies from \$10 for the average of 37.1 hours' work by the cashiers to \$31.01 per week for an average of 44.7 hours' work by the motion-picture-machine operators. The hourly rates vary from slightly less than 24 cents per hour for the doormen to over 69 cents per hour for the motion-picture-machine operators.

TABLE 1.—NUMBER OF EMPLOYEES IN THE MOTION-PICTURE THEATERS OF WASHINGTON, AVERAGE WEEKLY HOURS AND AVERAGE WEEKLY AND HOURLY WAGES, BY BRANCH OF WORK AND OCCUPATION

*Down-town de luxe presentation houses*

[3 theaters; average capacity, 2,680 seats]

Branch of work and occupation	Number of theaters	Number employed	Average hours per week	Average wages per week	Average wages per hour
Service:					
Cashiers.....	3	8	39.0	\$21.85	\$0.560
Assistant cashiers.....	1	1	31.0	11.40	.367
Doormen, day and night.....	3	5	54.2	22.33	.411
Doormen, night.....	1	1	28.0	11.40	.407
Full-time ushers.....	3	28	53.5	17.18	.321
Part-time ushers.....	3	20	32.4	9.34	.288
Pages.....	1	2	42.0	12.00	.285
Matrons.....	3	7	32.3	10.46	.323
Porters.....	3	16	48.4	19.57	.404
Cleaners.....	3	19	31.1	11.82	.380
Elevator boys.....	1	1	45.0	12.50	.277
Projection:					
Chief operators.....	3	3	40.0	96.67	2.419
Operators.....	3	16	40.0	80.00	2.000
Music:					
Leaders.....	3	3	42.0	140.00	3.333
Musicians.....	3	58	42.0	80.00	1.904
Stage:					
Electricians.....	3	12	48.0	67.50	1.406
Carpenters.....	3	6	48.0	73.33	1.527
Property men.....	3	6	48.0	71.44	1.488
Flymen.....	3	6	48.0	63.33	1.319
Other stage employees.....	3	5	48.0	60.00	1.250
Relief men.....	3	3	17.0	23.33	1.372
Stage doormen.....	3	3	56.0	22.00	.394
Maintenance:					
Engineers.....	3	7	53.7	58.64	1.091
Repair men.....	2	2	40.0	36.25	.906
Assistant repair man.....	1	1	56.0	20.00	.357
Watchmen.....	3	3	56.0	22.00	.394
Miscellaneous:					
Poster artists.....	2	2	48.0	115.00	2.395
Assistants.....	1	2	48.0	41.25	.859
Total number employed.....		246			
Average per theater.....		82			

*Down-town first-class straight-picture houses*

[5 theaters; average capacity, 1,475 seats]

Service:					
Cashiers.....	5	10	35.8	\$19.08	\$0.532
Relief cashiers.....	1	1	24.0	8.00	.333
Doormen.....	5	6	51.7	21.15	.409
Assistant doormen.....	2	2	34.0	12.25	.360
Full-time ushers.....	5	23	50.0	15.81	.316
Part-time ushers.....	5	18	29.1	9.00	.309
Matrons.....	4	5	28.2	11.70	.414
Porters.....	5	10	56.4	19.32	.342
Cleaners.....	4	18	35.2	11.12	.315
Projection:					
Chief operators.....	2	2	40.0	101.25	2.531
Operators.....	5	18	40.0	83.55	2.088
Music: Organists.....	4	8	42.0	72.31	1.721
Stage:					
Electricians.....	4	7	48.0	70.71	1.473
Carpenters.....	1	2	48.0	70.00	1.458
Relief men.....	4	4	24.0	25.84	1.076
Maintenance:					
Engineers.....	3	4	54.0	56.35	1.043
Maintenance men.....	2	3	45.3	25.00	.551
Watchmen.....	2	2	56.0	17.50	.312
Total number employed.....		143			
Average per theater.....		28.6			



# EMPLOYMENT IN MOTION-PICTURE THEATERS

5

TABLE 1.—NUMBER OF EMPLOYEES IN THE MOTION-PICTURE THEATERS OF WASHINGTON, AVERAGE WEEKLY HOURS, ETC.—Continued

## Other down-town straight-picture houses

[5 theaters; average capacity, 296 seats]

Branch of work and occupation	Number of theaters	Number employed	Average hours per week	Average wages per week	Average wages per hour
Service:					
Cashiers.....	5	7	47.4	\$14.57	\$0.307
Doormen.....	4	4	62.5	20.00	.320
Porters.....	5	5	24.4	11.70	.479
Projection: Operators.....	5	20	40.0	50.00	1.250
Total number employed.....		36			
Average per theater.....		7½			

## First-class neighborhood straight-picture houses

[11 theaters; average capacity, 1,016 seats]

Service:					
Cashiers.....	11	11	38.6	\$14.61	\$0.378
Relief cashiers.....	3	3	12.3	6.65	.540
Doormen.....	11	13	33.6	10.11	.300
Full-time ushers.....	11	31	32.5	9.28	.285
Part-time ushers.....	1	3	24.0	8.55	.356
Matrons.....	2	2	39.0	13.53	.346
Porters.....	11	18	54.6	18.40	.336
Cleaners.....	2	3	37.3	12.66	.339
Elevator boys.....	1	1	44.0	14.25	.323
Projection:					
Operators.....	11	24	40.0	67.10	1.677
Relief operators.....	2	2	8.0	17.00	2.125
Music: Organists.....	1	1	42.0	75.00	1.785
Stage:					
Electricians.....	1	2	48.0	70.00	1.458
Relief electricians.....	1	1	16.0	20.00	1.250
Maintenance:					
Engineers.....	1	1	49.0	33.25	.678
Watchmen.....	1	1	56.0	19.00	.339
Total number employed.....		117			
Average per theater.....		10¾			

## Other neighborhood straight-picture houses

[12 theaters; average capacity, 421 seats]

Service:					
Cashiers.....	12	12	33.0	\$10.70	\$0.324
Doormen.....	10	10	35.6	11.15	.313
Ushers.....	5	7	33.5	8.85	.264
Porters.....	11	11	43.5	13.63	.313
Matrons.....	1	1	30.0	9.00	.300
Projection: Operators.....	12	24	37.9	41.47	1.094
Total number employed.....		65			
Average per theater.....		5½			

## Colored first-class picture houses

[5 theaters; average capacity, 835 seats]

Service:					
Cashiers.....	5	9	38.0	\$14.33	\$0.377
Doormen.....	5	6	60.6	16.08	.265
Ushers.....	4	13	41.4	11.23	.271
Porters.....	3	7	54.8	18.35	.334
Front men.....	1	1	42.0	15.00	.357
Cleaners.....	1	2	48.0	9.50	.197
Projection:					
Chief operators.....	3	3	56.0	47.33	.845
Operators.....	5	6	53.3	30.38	.569
Helpers.....	5	5	52.8	12.60	.238
Music: Organists.....	2	2	42.0	37.50	.892
Stage: Electricians.....	1	2	56.0	27.50	.491
Maintenance:					
Engineers.....	1	1	56.0	20.00	.357
Watchmen.....	1	1	70.0	22.50	.321
Total number employed.....		58			
Average per theater.....		11½			

TABLE 1.—NUMBER OF EMPLOYEES IN THE MOTION-PICTURE THEATERS OF WASHINGTON, AVERAGE WEEKLY HOURS, ETC.—Continued

*Other colored picture houses*

[7 theaters; average capacity, 302 seats]

Branch of work and occupation	Number of theaters	Number employed	Average hours per week	Average wages per week	Average wages per hour
Service:					
Cashiers.....	7	11	37.1	\$10.00	\$0.269
Doormen.....	7	9	47.1	11.22	.238
Porters.....	4	4	69.2	18.12	.261
Projection:					
Operators.....	7	12	44.7	31.01	.693
Helpers.....	7	10	43.3	11.82	.272
Total number employed.....		45			
Average per theater.....		6.4			

## Effects of Introduction of Sound Equipment Upon Employment in Motion-Picture Theaters

SOUND equipment was first installed in a theater in Washington in December, 1927. During 1928 the change from silent to sound pictures proceeded at a comparatively slow pace, but speeded up in 1929, and by the middle of 1930 all Washington motion-picture theaters had changed from silent to sound pictures. Some of the smaller theaters which could not afford the initial costs of the change were compelled to close their doors.

The change from silent to sound pictures affected chiefly the employment status of the motion-picture-machine operators and the musicians. The change in employment conditions of the motion-picture-machine operators was gradual, taking place in the separate theaters along with the installation of sound equipment in the theater. In the case of the musicians, however, the change took place in all the theaters simultaneously, becoming effective with the signing of the October, 1930, agreement between the local union of musicians and the Theater Owners' Association of Washington.

## Employment Situation Among Motion-Picture-Machine Operators

THERE has been no appreciable change in the total number of motion-picture-machine operators employed in the Washington theaters since the installation of sound equipment. Only two theaters were called upon to increase their total number of operators—from 4 to 6—but the change to sound pictures was accompanied by substantial increases in the earnings of all the licensed motion-picture-machine operators employed in the theaters. The most important change, however, was the transfer of the 34 assistants to the licensed motion-picture-machine operators to the status of bona-fide operators, thus automatically raising their earnings from an average of about \$15 per week to a minimum of from \$40 to \$85 per week, depending on the type of theater where the assistants had been employed prior to the installation of sound equipment. Table 2 presents a comparison of the employment status and the earnings of all the motion-picture-machine operators employed in the 36 white theaters which employed union labor before and after the change from silent to sound pictures.

TABLE 2.—EFFECTS OF INSTALLATION OF SOUND EQUIPMENT ON EMPLOYMENT AND EARNINGS OF MOTION-PICTURE-MACHINE OPERATORS AND THEIR ASSISTANTS IN THE WHITE THEATERS OF WASHINGTON, D. C.

Theater group	Employment prior to installation of sound equipment				Present employment	
	Licensed operators		Assistants		Licensed operators	
	Number	Average basic weekly wage	Number	Average weekly wage	Number	Average basic weekly wage
De luxe presentation houses.....	15	\$65.00	0	-----	19	\$80.00
First-class down-town straight-picture theaters.....	18	65.00	2	\$16.00	20	85.00
Smaller down-town straight-picture theaters.....	10	52.50	10	15.00	20	54.38
First-class neighborhood picture theaters.....	14	55.75	10	15.62	24	67.44
Smaller neighborhood picture theaters.....	12	40.00	12	12.00	24	42.75
Total.....	69	-----	34	-----	107	-----

This table shows that there are now 107 organized motion-picture-machine operators permanently employed in the theaters of Washington. In addition, there are a few relief operators working part time in several theaters to make up the average of 40 hours per week. The total membership of Local No. 224 of the International Alliance of Theatrical Stage Employees and Motion-Picture-Machine Operators, which is the local organization of the motion-picture-machine operators, is made up as follows: Journeymen, 81; junior members, 23; apprentices, 17; colored auxiliary, 11; total, 132. The difference between the total white membership of 121 and the total number of permanently employed white motion-picture-machine operators is very slight, and the local claims to have no permanently unemployed members on the list. Besides, 38 of the permanently employed motion-picture-machine operators, it was ascertained by the representative of the Bureau of Labor Statistics, have regular jobs elsewhere in addition to their work as projectionists. Eighteen of these are Government employees. On the whole, the change from silent movies to sound pictures affected the employment situation among the motion-picture-machine operators very favorably. While there has not been an appreciable increase in the total number of individuals employed as motion-picture-machine operators, their earnings, and particularly the earnings of the former apprentices or assistants to the licensed operators who were converted into bona-fide operators, have been raised considerably.

#### Employment Status of Musicians

IN DIRECT contrast to the motion-picture-machine operators, the status of the musicians employed in the motion-picture theaters in Washington has been affected most unfavorably by the introduction of mechanical music to accompany the sound pictures. Table 3 gives statistics of the changes in the employment of musicians in the Washington motion-picture theaters before and after the October, 1930, agreement. Prior to 1930 the 3 down-town de luxe presentation houses employed altogether 78 musicians, inclusive of the



leaders and the organists. The 1930 agreement reduced this number to 61 musicians for the winter season and 55 for the summer, a reduction in these 3 theaters of 17 for the winter season and 23 for the summer months. Prior to the 1930 agreement, the 5 down-town first-class straight movie houses employed 58 musicians, inclusive of leaders and organists. The new agreement calls for only 8 organists, thus displacing 50 of the 58 musicians in the second group of theaters. The third group, comprising the 5 smaller down-town theaters, employed prior to the 1930 agreement 5 permanent and 1 relief organists, all of whom have been eliminated by the new agreement. The 11 first-class neighborhood theaters employed prior to the 1930 agreement 15 permanent and 7 relief musicians of whom only 1 organist has been retained, thus displacing 14 permanent and the 7 relief musicians. By the same agreement the smaller neighborhood houses eliminated 14 musicians and retained none. Out of 170 permanent and 8 relief musicians employed in all the white theaters in Washington prior to the 1930 agreement only 70 musicians were retained, making the total number displaced by the introduction of mechanical music 100 permanent and 8 relief musicians, or slightly over 60 per cent of the total number employed.

In the colored theaters the first group of 5 theaters, with a capacity of over 500 seats, employed prior to the introduction of sound 17 musicians. At present, this group of theaters employs only 2 organists having dropped 15 musicians. The 7 smaller theaters displaced all of the 6 musicians employed therein prior to the introduction of sound pictures. Thus, out of a total of 23 musicians formerly employed in the colored theaters 21, or 91 per cent, have been displaced by the installation of sound equipment in these theaters.

TABLE 3.—NUMBER OF MUSICIANS DISPLACED BY INSTALLATION OF SOUND EQUIPMENT IN MOTION-PICTURE THEATERS OF WASHINGTON, D. C.

Theater group	Musicians employed—		Musicians displaced
	Prior to 1930 agreement	After 1930 agreement	
<i>White theaters</i>			
De luxe presentation houses.....	78	61	17
Down-town first-class straight-picture theaters.....	58	8	50
Other down-town straight-picture houses.....	<sup>1</sup> 5	0	<sup>1</sup> 5
First-class neighborhood theaters.....	<sup>2</sup> 15	1	<sup>2</sup> 14
Other neighborhood theaters.....	14	0	14
Total, white theaters.....	<sup>3</sup> 170	70	<sup>3</sup> 100
<i>Colored theaters</i>			
First-class colored theaters.....	<sup>4</sup> 17	2	15
Other colored theaters.....	<sup>4</sup> 6	0	6
Total colored theaters.....	23	2	21
Total, all theaters.....	<sup>3</sup> 193	72	<sup>3</sup> 121

<sup>1</sup> Also 1 relief musician.

<sup>2</sup> Also 7 relief musicians.

<sup>3</sup> Also 8 relief musicians.

<sup>4</sup> 2 theaters were opened with sound equipment and without musicians.



### Present Employment Situation Among Musicians

THE number of musicians who were put out of work by the introduction of sound in the motion-picture theaters was so large that the representative of the bureau found it necessary to check up the general employment situation among musicians in the city of Washington, which was done with the assistance of the officers of the local organization of musicians, No. 161 of the American Federation of Musicians. At the time of the survey the local had 748 members in good standing living in Washington. Of these, 443 members were classified as professionals in the sense that they regard their musical occupation as their chief source of income; the remaining 305 members had other occupations outside the musical field and regarded music merely as a source of additional income. Among them there were 64 Government employees, 48 clerks, 19 salesmen, 19 students, and 17 mechanics and machinists. The other nonprofessional members of the union either had miscellaneous jobs or did not specify their occupations.

There were 210 musicians, or slightly under 50 per cent of the 443 professional members of the local organization, who were permanently or temporarily employed as musicians at the time of this investigation. The others were either entirely unemployed, or were engaged in occasional playing or in teaching music. Thus, even if one excludes the 305 nonprofessional members of the local musicians' union, the chances of employment for the musicians who had lost their jobs in the theaters appear very slight.

The only compensating factor in the amusement industry, so far as the employment of musicians is concerned, is the increased employment of musicians for radio broadcasting purposes. In response to a request from the Bureau of Labor Statistics, one local radio broadcasting station wrote that in 1929 they paid local musicians for broadcasting performances, \$3,895. In 1930 the same station paid out in salaries to local musicians \$8,133, but during the 8 months from January 1 to August 31, 1931, the local musicians received for radio services \$35,331, or an average of \$4,416 per month. During the 4 weeks from April 1 to April 28, 81 musicians used for broadcasting purposes earned \$5,086, or an average of about \$63 per musician. These figures clearly indicate the growing demand for local musicians by the local radio stations. Unfortunately, it was not possible to determine whether the musicians employed for radio broadcasting came from the ranks of those already having jobs or from the ranks of the unemployed musicians. In this connection it was found by the agent of the bureau that some of the musicians employed either in the theaters or elsewhere often carry more than one job, thus still further diminishing the chances for employment among those out of work.

### What Happened to the Displaced Musicians?

THE lot of the men and women who are thrown out of work because of technological changes in industry constitutes by far the most vital problem in the industrial progress of the community. Much indeed depends on whether the workers displaced by technological changes manage to get new jobs, or whether they lose their jobs altogether, thus swelling the ranks of the permanently unemployed.

In the present survey the representative of the bureau made a follow-up study of the musicians who had lost their jobs because of the introduction of sound equipment in the motion-picture theaters in Washington, D. C. It was necessary first to determine who such individuals were. This, which would have been a comparatively simple matter in a single plant, did not prove so simple in the case of the musicians. Certain theaters had completely disbanded their orchestras and released all their musicians. Other theaters had merely reduced their orchestras, but had first discharged a larger number of men than was necessary and then filled the vacant jobs from the ranks of musicians discharged from other theaters. Again, some hotel and restaurant orchestras had discharged several of their men and replaced them from the ranks of the musicians discharged from the motion-picture theaters. It became, therefore, necessary to draw the line between those who were discharged primarily for technological reasons and those discharged to be replaced by other musicians.

It was therefore agreed between the representative of the bureau and the leaders of the musicians' union that the musicians in the motion-picture theaters who were left without jobs after October, 1930, irrespective of whether they were or were not replaced by other musicians in the theaters, constituted the so-called "technological casualties" in the motion-picture theaters. If some of these "technological casualties" managed to find jobs by replacing musicians outside of the motion-picture theaters, these were regarded as personal adjustments entirely outside of the scope of the technological changes in the motion-picture theaters.

Table 4 gives a statistical analysis of what happened to the 101 musicians who were classified as "technological casualties" in the motion-picture theaters. The fate of 8 musicians could not be determined because they had severed their connections with the union and no information could be secured as to their present address or occupation. Twenty musicians left Washington, some of them having secured jobs elsewhere and others in search of jobs; 11 musicians found full-time jobs in the field of music by playing primarily in restaurants or hotels; 19 secured part-time playing jobs, such as broadcasting on the radio, playing with the Soldiers' Home Band, or teaching music; 21 musicians gave up their musical profession and found jobs in different fields; and 22 musicians have had no jobs at all since they were discharged from the theaters. Of these, 13 are being supported either by husbands, wives, or children, while 9 have no support whatsoever. Some are actually in dire need.

TABLE 4.—PRESENT STATUS OF WHITE MUSICIANS DISPLACED BY INTRODUCTION OF SOUND EQUIPMENT IN MOTION-PICTURE THEATERS IN WASHINGTON, D. C.

Present status of musicians	Number of musicians
Left Washington.....	20
Full-time jobs in the field of music.....	11
Part-time jobs in the field of music.....	19
Occupations in fields other than music.....	21
Persons having no jobs but who are supported by husband, wife, or children.....	13
Persons having no jobs and no support.....	9
Unknown.....	8
Total.....	101

Table 4, indicating the present status of the musicians who were displaced by the introduction of sound, does not tell the whole story of whether or not the individuals affected became adjusted to their new circumstances. The representative of the bureau, therefore, visited about 50 homes of musicians and secured personal interviews with the men and women who were thrown out of work by the motion-picture theaters. As lack of space makes it impossible to give in detail the stories of all the 50 persons, it has been decided to present only sample cases characteristic of each of the following groups shown in Table 4: (1) Musicians who have secured part-time jobs in the field of music; (2) musicians who have secured jobs in fields outside of music; and (3) musicians who have had no job whatever since they were discharged from the theater.

Group 1.—Musicians Who Have Secured Part-Time Jobs in the Field of Music

*Case No. 1* has had only a few substitute playing jobs since he lost his \$75-a-week job at one of the theaters. He is now instructor of music at a local college, averaging during the eight college months about \$40 a month, and is also giving private lessons, averaging less than \$20 per week for all seasons. He owns his home, which is about half paid for, but is compelled to draw on his savings to continue payments and to support his family. He was once a machinist by trade and worked for four years in the navy yard, and is seeking a position as machinist in order to quit the musical profession.

*Case No. 2* is now partly employed with the Soldiers' Home Band and also works as employee in a music store, making \$25 a week. He is married, but has no children. Music is his principal occupation. He played in grand opera in Germany, was concert master with several orchestras, and is definitely not adjusted to his present situation. He hopes to establish permanent connections with some orchestra, but is 53 years old and fears that his age is very much against him.

*Case No. 3* plays over the radio twice a week and also has a few pupils, but is not averaging more than \$30 per week. He is married and has three children. He was recently compelled to move from a 3-room apartment to smaller quarters in a less desirable neighborhood. His wife is doing a little dressmaking, and he is desperately struggling to make ends meet without abandoning his profession, but is very despondent.

*Case No. 4* is continuing his musical profession by doing some teaching in schools and giving private lessons. His earnings average from \$25 to \$30 per week, which is not sufficient to support his family of wife and two children and to continue partial payments on his home bought when times were better. He says he is "getting by," due to the strict economy with which his wife manages the household. He is sorry music is the only trade he knows; otherwise he would be glad to turn to some other work.

Group 2.—Musicians Who Have Given Up Their Occupations and Secured Jobs in Other Fields

*Case No. 5* was organist at one of the theaters, making \$62 a week. After October, 1930, he became chief usher at the theater at \$10 per week, and also did the advertising work for the theater for an additional \$15 a week. He is married and has no children; he was compelled to give up his apartment and live with his mother-in-law to cut



expenses. He is doing "tolerably well," having recently become assistant manager in another theater at \$40 per week, while his wife secured a job as cashier in a smaller theater, making \$9.50 a week. He has severed his connection with the musicians' union, and does not expect ever to return to music.

*Case No. 6* never regarded music as his permanent trade. He was studying law while playing in the theater and went to work as a lawyer a week after having been discharged from the theater. While not earning nearly so much now as in the theater, he is more satisfied because of the better outlook for the future. He is married but has no children; his wife also has a job.

*Case No. 7* is a widow with two children, both in school. She was organist at \$42.50 per week, and upon losing her job in the theater was compelled to take a job in a department store at \$16 a week. She is now working in a clothing store, her earnings averaging about \$25 per week. She owns her home and is "scraping along"; does not expect to return to music for a living.

*Case No. 8* was making about \$40 a week playing the piano in a small neighborhood theater. He has also been in the advertising business since 1927 and has been doing much better business in that field since losing his job as musician. He is married and has three children. His wife particularly emphasizes the fact that business has improved more than 50 per cent since her husband has given up his job in the theater. He has given up membership in the union and does not expect to play again for a living.

*Case No. 9* has been doing miscellaneous playing, as well as occasionally teaching music; he also became a salesman for a large coal concern and his earnings now average about \$30 to \$35 a week. He owns his home, which is completely paid for, and says he is "breaking about even," but would prefer to reestablish connections in the musical field. He is 57 years old.

Group 3a.—Musicians Who Have No Jobs, but are Supported Either by Husband, Wife, or Children

*Case No. 10* was permanent organist in a theater at \$73 a week. She has not been playing since October, 1930, when she lost her job. Her husband is stage carpenter in one of the theaters, making \$60 a week. She has no children, and the home belongs to her mother. She did not need the job except for the fear that her husband may lose his job in the very near future.

*Case No. 11* was regular organist, making about \$58 a week. She has not been playing since October, 1930, except in occasional church services; she tried to sell life insurance for about six months but the venture proved unsuccessful. Her husband is salesman for a local company, making about \$200 a month. They own their home and have three children in school. The wife does not need the job for a living, but will try to continue in the musical field out of love for the profession.

*Case No. 12* was regular pianist at small down-town theater, her earnings averaging \$30 a week and had been playing in the various theaters for over 15 years. She is separated from her husband, and lives with a son 21 years old who has a Government job, making about \$30 a week. She is now taking a special course in typing and steno-



graphic work hoping to get a job as stenographer and permanently to sever connection with the musical profession. She has not been playing nor doing any teaching since losing the job in the theater.

Group 3b.—Musicians Having No Jobs and No Support

*Case No. 13* has been out of work since she lost her job in October, 1930; she has had occasional pupils, but very few. Her husband was connected with a minstrel show and has also been out of a job for some time. They have one boy 15 years old, and are living with a sister who is working and is helping to support the family. Mrs. ——— is an outstanding organist and pianist. She has not yet recovered from the shock received when her job was lost a year ago, and the continuous lack of work has made her very melancholy. The family is practically out of funds, with no immediate prospects, and may need outside aid.

*Case No. 14* has had a few miscellaneous engagements for playing, but no permanent job. He is compelled to live off savings which, according to his statement, may not last through the winter. He is 56 years old and has two sons, both musicians. One son is married and has a job, but the younger son still depends on the support of the parents. He is very discouraged about the future, particularly since he knows no other trade; he is trying to get at least a temporary job with a local symphony orchestra, but is not very hopeful.

*Case No. 15* has had no permanent job since having been discharged from the theater, where his earnings averaged about \$75 a week, though he has played at occasional dances. He is living with his son-in-law but still has some savings from previous years, and is planning to go into business, though he would prefer to get some playing job instead.

*Case No. 16* is married and has three sons, all musicians. One married son also lost his job in October, 1930, and is living with parents, relying entirely upon their support; the other two sons are out of Washington, pursuing musical occupations. Since losing his job Mr. ——— opened a music store and invested \$5,000, but is not doing well and is living off the capital invested. He was once a well-known musician, having played with the famous singer Chaliapin in the Czar's Opera at Petrograd. He has had a checkered career, but has never been out of work for any length of time except at present. He had been playing 11 years in the theater from which he was discharged last October and is not adjusted to his present status, but is still hoping to reestablish himself in the musical profession.

*Case No. 17* was a pianist in a small theater, averaging about \$40 a week. He has been without a job since October, 1930; has taken the civil-service examination as translator, and is hoping to get a job soon. He is absolutely without means except for the little income that his wife brings in by occasional sewing in private homes; of late she too has been without work. The family lacks proper means of subsistence, and at times does not know where the food for the next day will come from; it may be a case for charity.

The individual cases presented above may be regarded as a representative cross-section of their particular groups. While the agent of the bureau in visiting the 50 homes of musicians found only two or three cases of dire need or suffering from actual lack of means for

subsistence, the adjustments through which the discharged musicians had to go proved to be extremely painful. Although managing to earn a living, the majority of the musicians visited were found to be dissatisfied with their new circumstances and eagerly looking forward to an opportunity of again establishing themselves in their musical professions. The wholesale displacement of theatrical musicians which took place in October, 1930, came to most of them as a severe shock; and comparatively few displaced musicians so far have managed to get fully adjusted in their new vocations, either as musicians or outside of the field of music.

## Elapsed Time in Building Construction

FOR 10 years the Bureau of Labor Statistics has been issuing reports showing the number and estimated cost of buildings for which permits were issued in cities of the United States having a population of 25,000 or over. In connection with these reports, the following questions have frequently arisen: (1) How many permits were allowed to lapse or remain unused after they were applied for; (2) how soon after the building permit was issued work was available in the construction of the building; (3) for how long was employment available on the different types of buildings.

In order to determine the answer to these three questions the Bureau of Labor Statistics early in 1931 undertook a study in 10 selected cities. Before the study was started a questionnaire was sent to the building inspectors of a large number of cities to find out whether this information was available. Selection was then made from the cities reporting that their records showed the information wanted by the bureau. Many cities do not keep such complete records. Because the study involved much research in the files of the local building inspectors it was necessary to limit the study to 10 cities. The cities were selected with reference to population and geographic location.

The study was still further restricted by omitting from the report the large number of small buildings, such as private garages, sheds, stables, and barns. These classes of buildings, although large in quantity, accounted for a very small per cent of the total costs of new building construction. Additions, alterations, and repairs were also eliminated from the study.

The present report covers permits issued in 1929.

### Lapses and Cancellations

AS ABOVE stated the first question was to determine to what extent a building permit resulted in the actual erection of a building, or, conversely, to determine the extent to which permits were allowed to lapse. Occasionally a building is not erected even though a permit has been taken out. In such a case the permit is allowed to lapse from nonuse or it may be returned and formally canceled. Such cancellations are here considered as lapses.

Table 1 is intended primarily to show the number and estimated cost of lapsed permits in comparison with the total volume of permits issued for buildings of major importance in the 10 selected cities. The omitted buildings were private garages, sheds, stables, and barns. These were many in number but not significant in value, and were excluded to economize in time.

The table first shows the total number of new buildings for which permits were issued and the estimated cost of the buildings covered by the permits. All classes of buildings, large and small (private garages, sheds, stables, and barns), are included under total new buildings. The next section of the table relates to the class of buildings covered by the study, that is, all new buildings exclusive of private garages, sheds, stables, and barns. The table shows the number of such buildings and their estimated cost and the number and estimated cost of the buildings for which the permits lapsed.



TABLE 1.—NUMBER AND ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS LAPSED AND PER CENT THEY FORM OF TOTAL NUMBER AND COST OF NEW BUILDINGS, EXCLUDING SHEDS, PRIVATE GARAGES, STABLES, AND BARNs

City	Total new buildings		New buildings, excluding private garages, sheds, stables, and barns					
	Number of buildings	Estimated cost	Number of buildings	Estimated cost	Lapsed permits		Estimated cost of lapsed permits	
					Number	Per cent of total buildings	Amount	Per cent of total cost
Brooklyn.....	6,683	\$130,095,209	1,793	\$128,342,839	5	0.3	\$181,000	0.1
Cambridge.....	296	10,430,640	122	10,311,735	0	0	0	0
Cincinnati.....	2,788	28,306,405	1,353	27,750,360	13	1.0	241,300	.9
Denver.....	2,372	14,636,100	870	14,290,750	38	4.4	199,600	1.4
Los Angeles.....	17,364	80,819,231	8,149	78,193,803	50	.6	1,758,250	2.2
Milwaukee.....	4,972	32,284,424	1,439	31,237,562	17	1.2	234,000	.7
New Haven.....	617	11,593,120	189	11,321,100	3	1.6	30,500	.3
Philadelphia.....	5,596	95,254,090	4,403	92,226,595	44	1.0	6,079,500	6.6
Richmond.....	1,209	7,921,475	516	7,615,992	13	2.5	143,300	1.9
St. Paul.....	2,126	7,086,686	480	6,668,463	3	.6	12,400	.2
Total.....	44,023	418,427,380	19,314	407,959,199	186	1.0	8,879,850	2.2

In the 10 cities under discussion permits were issued for 44,023 new buildings to cost \$418,427,380. The elimination of private garages, sheds, stables, and barns cuts down this number to 19,314 buildings, estimated to cost \$407,959,199. In other words, the classes of buildings included in the study covered less than half of the total number of buildings for which permits were issued, but accounted for 97.5 per cent of the total cost of all buildings. Of the 19,314 buildings of the classes scheduled only 186 were not erected. This was approximately 1 per cent of the number included in the study. The estimated cost of the 186 lapsed permits was \$8,879,850, or 2.2 per cent of the estimated cost of all buildings included in the study. However, in one city the lapsed permits amounted to more than 5 per cent of the total cost of all buildings.

In Philadelphia the estimated cost of the buildings for which permits lapsed was more than \$6,000,000. This was accounted for by a large number of lapsed permits for apartment houses. During 1929 a new multiple dwelling house law went into effect in Philadelphia. The law stated that all apartment houses for which permits were applied for before a specified date in 1929 could be erected under the old law, and a large number of builders wishing to take advantage of this provision applied for permits when they were not positive they were going to build, and many of these permits were allowed to lapse.

Table 2 shows the number and estimated cost of buildings on which permits were allowed to lapse during 1929 in 10 selected cities, by kind of building.



TABLE 2.—NUMBER AND ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS, ISSUED IN 10 SELECTED CITIES IN 1929, LAPSED, BY KINDS OF BUILDINGS

City	1-family dwellings		2-family dwellings		Apartment houses	
	Number	Estimated cost	Number	Estimated cost	Number	Estimated cost
Brooklyn.....	2	\$20,000	0	0	3	\$161,000
Cambridge.....	0	0	0	0	0	0
Cincinnati.....	7	32,800	0	0	3	172,500
Denver.....	31	139,600	1	\$5,000	1	35,000
Los Angeles.....	28	171,750	8	23,700	3	67,000
Milwaukee.....	6	35,000	3	17,500	6	140,000
New Haven.....	2	4,500	0	0	0	0
Philadelphia.....	16	17,500	0	0	28	6,062,000
Richmond.....	2	4,800	8	68,500	1	65,000
St. Paul.....	2	6,400	0	0	0	0
Total.....	96	432,350	20	114,700	45	6,702,500
	Commercial buildings		Public buildings		Total	
	Number	Estimated cost	Number	Estimated cost	Number	Estimated cost
Brooklyn.....	0	0	0	0	5	\$181,000
Cambridge.....	0	0	0	0	0	0
Cincinnati.....	3	\$36,000	0	0	13	241,300
Denver.....	4	8,000	1	\$12,000	38	199,600
Los Angeles.....	8	550,800	3	945,000	50	1,758,250
Milwaukee.....	2	41,500	0	0	17	234,000
New Haven.....	1	26,000	0	0	3	30,500
Philadelphia.....	0	0	0	0	44	6,079,500
Richmond.....	2	5,000	0	0	13	143,300
St. Paul.....	1	6,000	0	0	3	12,400
Total.....	21	673,300	4	957,000	186	8,879,850

It will be noted that of the \$8,879,850, which was the total value of the buildings for which the permits lapsed, apartment houses accounted for \$6,702,500 or more than 75 per cent. Practically all of this amount was in Philadelphia. The reasons for these Philadelphia lapses have been previously explained. No other class of buildings accounted for as much as \$1,000,000.

Table 3 shows the number of lapsed permits and the per cent they form of the total number of permits for buildings included in the study, by cities and by kinds of buildings.

The lapsed permits in the case of apartment houses accounted for a larger percentage of the buildings for which permits were issued than the lapsed permits in any other of the classes of buildings scheduled.

Permits were issued in these 10 cities for 1,207 apartment buildings, of which 45 were allowed to lapse. This is 3.7 per cent of the total number of such buildings. Only seven-tenths of 1 per cent of permits for 1-family dwellings were allowed to lapse. Four permits for public buildings lapsed, this being 1.1 per cent of the number of public buildings for which permits were issued. Lapsed permits in each of the other classes of buildings accounted for not more than 1 per cent of the total number of permits for such buildings.

TABLE 3.—NUMBER AND PER CENT OF LAPSED PERMITS IN 10 SELECTED CITIES, BY CITIES AND BY KINDS OF BUILDINGS

City	1-family dwellings			2-family dwellings			Apartment buildings		
	Number	Lapsed permits		Number	Lapsed permits		Number	Lapsed permits	
		Number	Per cent		Number	Per cent		Number	Per cent
Brooklyn.....	717	2	0.3	469	0	0	240	3	1.3
Cambridge.....	21	0	0	31	0	0	9	0	0
Cincinnati.....	1,000	7	.7	158	0	0	75	3	4.0
Denver.....	646	31	4.8	28	1	3.6	38	1	2.6
Los Angeles.....	5,063	28	.6	1,219	8	.7	629	3	.5
Milwaukee.....	740	6	.8	441	3	.7	105	6	5.7
New Haven.....	117	2	1.7	8	0	0	20	0	0
Philadelphia.....	4,052	16	.4	68	0	0	74	28	37.8
Richmond.....	364	2	.5	33	8	24.2	9	1	11.1
St. Paul.....	352	2	.6	16	0	0	8	0	0
Total.....	13,072	96	.7	2,471	20	.8	1,207	45	3.7
	Commercial buildings			Public buildings			Total		
	Number	Lapsed permits		Number	Lapsed permits		Number	Lapsed permits	
		Number	Per cent		Number	Per cent		Number	Per cent
Brooklyn.....	320	0	0	47	0	0	1,793	5	0.3
Cambridge.....	52	0	0	9	0	0	122	0	0
Cincinnati.....	98	3	3.1	22	0	0	1,353	13	1.0
Denver.....	133	4	3.0	25	1	4.0	870	38	4.4
Los Angeles.....	1,086	8	.7	152	3	2.0	8,149	50	.6
Milwaukee.....	139	2	1.4	14	0	0	1,439	17	1.2
New Haven.....	30	1	3.3	14	0	0	189	3	1.6
Philadelphia.....	159	0	0	50	0	0	4,403	44	1.0
Richmond.....	89	2	2.2	21	0	0	516	13	2.5
St. Paul.....	83	1	1.2	21	0	0	480	3	.6
Total.....	2,189	21	1.0	375	4	1.1	19,314	186	1.0

## Lag Between Time Permit Was Issued and Work Started on Building

THE second fact to be determined by the bureau's study was the length of time between the date the permit was issued and the date when work was actually started on the building.

Table 4 shows the number of buildings on which work was started during the calendar year 1929 in these 10 cities by kinds of buildings and by the number of days elapsing between the issuing of the permits and the starting of work on the excavation.

During the calendar year 1929 building erection work was started on 19,130 buildings, of the types selected for this study, in the 10 cities. Work had begun on 8,483, or 44.3 per cent, of these buildings either on the same day or the day after the permit was issued. Within 5 days after the issuance of the permit 71 per cent of the buildings had been started. Within 40 days work had been started on 98 per cent of all buildings.

The average time elapsing between the issuance of the permit and starting work on the excavation ranged from 5.6 days in the case of 1-family dwellings to 13 days in case of public buildings. For building as a whole, the average time elapsing was 6.6 days.

TABLE 4.—NUMBER OF NEW BUILDINGS STARTED DURING 1929 IN 10 SELECTED CITIES, BY KINDS OF BUILDINGS AND BY NUMBER OF DAYS BETWEEN ISSUANCE OF PERMIT AND STARTING WORK ON EXCAVATION

Days between date of permit and start of excavation	Permits issued for—					Total permits	
	1-family dwellings	2-family dwellings	Apart-ment buildings	Commer- cial buildings	Public buildings	Num- ber	Per cent
1 and under.....	5,843	1,216	451	823	150	8,483	44.3
2 to 3.....	2,281	280	191	356	46	3,154	16.5
4 to 5.....	1,358	218	93	242	42	1,953	10.2
6 to 7.....	1,038	171	101	153	27	1,490	7.8
8 to 9.....	508	106	58	98	9	779	4.1
10 to 12.....	529	120	64	106	15	834	4.4
13 to 15.....	481	106	49	79	10	725	3.8
16 to 18.....	247	53	38	41	8	387	2.0
19 to 21.....	167	43	25	42	8	285	1.5
22 to 25.....	150	36	12	41	11	250	1.3
26 to 30.....	114	11	19	46	10	200	1.0
31 to 35.....	55	28	11	28	6	128	.7
36 to 40.....	34	13	6	27	4	84	.4
41 to 50.....	56	11	9	16	8	100	.5
51 to 60.....	37	12	6	17	5	77	.4
61 and over.....	79	28	29	53	12	201	1.1
Total.....	12,977	2,452	1,162	2,168	371	19,130	100.0
Average per building.....	5.6	6.7	10.2	9.8	13.0	6.6	

TABLE 5.—NUMBER AND PER CENT OF RESIDENTIAL BUILDINGS STARTED DURING 1929, BY CITIES AND BY NUMBER OF DAYS BETWEEN ISSUANCE OF PERMIT AND STARTING OF WORK ON EXCAVATION

Days between date of permit and start of excavation	Brooklyn		Cambridge		Cincinnati		Denver		Los Angeles		Milwaukee	
	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent
1 and under.....	540	38.0	32	52.5	577	47.2	340	50.1	3,156	45.9	835	65.7
2 to 3.....	223	15.7	6	9.8	120	9.8	79	11.6	930	13.5	51	4.0
4 to 5.....	111	7.8	4	6.6	92	7.5	44	6.5	662	9.6	59	4.6
6 to 7.....	127	8.9	2	3.3	90	7.4	58	8.5	587	8.5	68	5.4
8 to 9.....	54	3.8	2	3.3	45	3.7	31	4.6	363	5.3	18	1.4
10 to 12.....	60	4.2	3	4.9	35	2.9	45	6.6	340	4.9	63	5.0
13 to 15.....	33	2.3	5	8.2	57	4.7	29	4.3	316	4.6	39	3.1
16 to 18.....	28	2.0	1	1.6	44	3.6	11	1.6	173	2.5	28	2.2
19 to 21.....	32	2.3	1	1.6	35	2.9	9	1.3	133	1.9	19	1.5
22 to 25.....	42	3.0	0	0	32	2.6	15	2.2	89	1.3	11	0.9
26 to 30.....	28	2.0	3	4.9	21	1.7	9	1.3	62	.9	12	0.9
31 to 35.....	28	2.0	0	0	17	1.4	1	.1	26	.4	11	0.9
36 to 40.....	12	.8	0	0	14	1.1	1	.1	7	.1	17	1.3
41 to 50.....	27	1.9	1	1.6	20	1.6	2	.3	9	.1	13	1.0
50 to 60.....	14	1.0	0	0	9	.7	0	0	8	.1	4	.4
61 and over.....	62	4.4	1	1.6	15	1.2	5	.7	11	.2	23	1.8
Total.....	1,421	100.0	61	100.0	1,223	100.0	679	100.0	6,872	100.0	1,271	100.0
New Haven		Philadelphia		Richmond		St. Paul		All 10 cities				
	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent		
1 and under.....	36	25.2	1,710	41.2	75	18.9	209	55.9	7,510	45.3		
2 to 3.....	27	18.9	1,162	28.0	81	20.4	73	19.5	2,752	16.6		
4 to 5.....	25	17.5	559	13.5	71	17.9	42	11.2	1,669	10.1		
6 to 7.....	19	13.3	266	6.4	77	19.4	16	4.3	1,310	7.9		
8 to 9.....	4	2.8	122	2.9	22	5.5	11	2.9	672	4.1		
10 to 12.....	11	7.7	129	3.1	20	5.0	7	1.9	713	4.3		
13 to 15.....	6	4.2	127	3.1	17	4.3	7	1.9	636	3.8		
16 to 18.....	2	1.4	42	1.0	6	1.5	3	.8	338	2.0		
19 to 21.....	2	1.4	1	(1)	3	.8	0	0	235	1.4		
22 to 25.....	2	1.4	3	.1	4	1.0	0	0	198	1.2		
26 to 30.....	4	2.8	2	.1	3	.8	0	0	144	.9		
31 to 35.....	1	.7	5	.1	4	1.0	1	.3	94	.6		
36 to 40.....	2	1.4	0	0	0	0	0	0	53	.3		
41 to 50.....	0	0	1	(1)	1	.3	1	.3	75	.5		
50 to 60.....	0	0	20	.5	1	.3	0	0	56	.3		
61 and over.....	2	1.4	1	(1)	12	3.0	4	1.1	136	.8		
Total.....	143	100.0	4,150	100.0	397	100.0	374	100.0	16,591	100.0		

<sup>1</sup> Less than one-tenth of 1 per cent.



Table 5 (p. 19) shows the number and per cent of residential buildings on which work was started during the calendar year 1929, by cities and by days elapsing between the date of the issuance of the permit and the date work was started on the excavation for the building.

In these 10 cities work was started on 16,591 residential buildings during the calendar year 1929. On nearly 80 per cent of these buildings work had been started within a week after the permit was issued, and over 98 per cent had been started within 40 days after the issuance of the permit. In each of the 10 cities work was started on more than 70 per cent of the buildings within 7 days after the permit was issued. In St. Paul more than 90 per cent of the residential buildings constructed were under way in a week after the builder had obtained his permit to build.

Table 6 shows the number and per cent of nonresidential buildings on which work was started during the calendar year 1929, by cities and by days elapsing between the date of the issuance of the permit and the time work was started on the excavation for the building.

TABLE 6.—NUMBER AND PER CENT OF NONRESIDENTIAL BUILDINGS STARTED DURING 1929, BY CITIES AND BY NUMBER OF DAYS BETWEEN ISSUANCE OF PERMIT AND STARTING OF WORK ON EXCAVATION

Days between date of permit and start of excavation	Brooklyn		Cambridge		Cincinnati		Denver		Los Angeles		Milwaukee	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1 and under	109	29.7	22	36.1	64	54.7	56	36.6	414	33.7	93	61.6
2 to 3	49	13.4	7	11.5	6	5.1	28	18.3	234	19.1	9	6.0
4 to 5	28	7.6	4	6.6	13	11.1	22	14.4	173	14.1	7	4.6
6 to 7	22	6.0	4	6.6	2	1.7	20	13.1	97	7.9	3	2.0
8 to 9	12	3.3	5	8.2	5	4.3	4	2.6	67	5.5	2	1.3
10 to 12	15	4.1	3	4.9	3	2.6	11	7.2	66	5.4	3	2.0
13 to 15	13	3.5	3	4.9	5	4.3	6	3.9	39	3.2	5	3.3
16 to 18	9	2.5	1	1.6	3	2.6	2	1.3	22	1.8	2	1.3
19 to 21	11	3.0	0	0	1	0.9	0	0	32	2.6	3	2.0
22 to 25	5	1.4	4	6.6	4	3.4	1	0.7	23	1.9	3	2.0
26 to 30	14	3.8	2	3.3	2	1.7	0	0	23	1.9	7	4.6
31 to 35	13	3.5	1	1.6	0	0	0	0	9	0.7	3	2.0
36 to 40	8	2.2	2	3.3	1	0.9	0	0	12	1.0	2	1.3
41 to 50	7	1.9	1	1.6	0	0	1	0.7	8	0.7	3	2.0
51 to 60	13	3.5	0	0	2	1.7	0	0	3	0.2	2	1.3
61 and over	39	10.6	2	3.3	6	5.1	2	1.3	5	0.4	4	2.6
Total	367	100.0	61	100.0	117	100.0	153	100.0	1,227	100.0	151	100.0
	New Haven		Philadelphia		Richmond		St. Paul		All 10 cities			
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent		
1 and under	18	41.9	97	46.4	44	40.7	56	54.4	973	38.3		
2 to 3	10	23.3	23	11.0	17	15.7	19	18.4	402	15.8		
4 to 5	4	9.3	8	3.8	15	13.9	10	10.0	284	11.2		
6 to 7	6	14.0	13	6.2	5	4.6	8	7.8	180	7.1		
8 to 9	1	2.3	8	3.8	2	1.9	1	1.0	107	4.2		
10 to 12	1	2.3	13	6.2	2	1.9	4	3.9	121	4.8		
13 to 15	1	2.3	11	5.3	5	4.6	1	1.0	89	3.5		
16 to 18	1	2.3	7	3.3	1	0.9	1	1.0	49	1.9		
19 to 21	0	0	2	1.0	1	0.9	0	0	50	2.0		
22 to 25	0	0	8	3.8	2	1.9	2	1.9	52	2.0		
26 to 30	0	0	7	3.3	1	0.9	0	0	56	2.2		
31 to 35	0	0	3	1.4	5	4.6	0	0	34	1.3		
36 to 40	0	0	2	1.0	4	3.7	0	0	31	1.2		
41 to 50	0	0	2	1.0	2	1.9	0	0	24	0.9		
51 to 60	0	0	2	1.0	0	0	0	0	22	0.9		
61 and over	1	2.3	3	1.4	2	1.9	1	1.0	65	2.6		
Total	43	100.0	209	100.0	108	100.0	103	100.0	2,539	100.0		



The work did not begin quite so quickly on nonresidential buildings as on residential buildings; however, more than 72 per cent of the residential buildings were under way within 7 days after the permit to build was issued. Work had been started on nearly 40 per cent within 1 day after the permit was issued. The start was delayed on only 4.4 per cent for longer than 40 days. The delay in starting building was slightly longer in Brooklyn than in any other city scheduled. Even in Brooklyn, however, ground had been broken in the case of 56.7 per cent of all the nonresidential buildings for which permits were issued within a week after the permit was issued.

In St. Paul more than 90 per cent of all nonresidential buildings were under way within a week after the permit was issued. Brooklyn is the only city where work on more than 10 per cent of the buildings of this class was delayed longer than 40 days.

### Lag Between Time Excavation was Started and Building was Completed

TABLE 7 shows the number and per cent of buildings on which work was started during the calendar year 1929 in 10 selected cities, by kinds of buildings and by days elapsing between the date work was started on the excavation and the date the building was completed.

TABLE 7.—NUMBER OF NEW BUILDINGS STARTED DURING 1929 IN 10 SELECTED CITIES BY KINDS OF BUILDINGS AND BY NUMBER OF DAYS BETWEEN STARTING WORK ON EXCAVATION AND COMPLETION OF BUILDING

Days between start of excavation and completion	1-family dwellings		2-family dwellings		Apartment buildings	Commercial buildings	Public buildings	Total buildings	
	Frame	Brick	Frame	Brick				Number	Per cent
Under 60.....	1,459	22	185	6	22	605	51	2,350	12.3
61 to 90.....	2,703	263	617	43	161	557	36	4,380	22.9
91 to 120.....	1,450	842	447	166	285	356	35	3,581	18.7
121 to 150.....	709	1,269	179	179	194	232	36	2,798	14.6
151 to 180.....	450	803	121	156	155	153	38	1,876	9.8
181 to 210.....	305	906	62	88	122	83	31	1,597	8.3
211 to 240.....	98	530	22	50	64	49	28	841	4.4
241 to 270.....	87	276	8	31	33	37	18	490	2.6
271 to 300.....	31	263	7	14	26	19	23	383	2.0
301 to 330.....	29	118	5	10	23	19	8	212	1.1
331 to 365.....	15	141	5	22	22	16	17	238	1.2
366 to 395.....	14	104	5	5	18	11	13	170	.9
396 and over.....	20	70	1	18	37	31	37	214	1.1
Total.....	7,370	5,607	1,664	788	1,162	2,168	371	19,130	100.0
Average.....	98.4	177.6	103.3	171.5	163.1	107.6	198.4	132.0	-----

Work was started during the year 1929 on 19,130 new buildings, excluding private garages, sheds, and other small buildings, in the 10 selected cities. Of this number 78.3 per cent were completed within 6 months after work was started, and 35.2 per cent within 90 days after work was started on the building. Only 2.0 per cent of these buildings required more than 1 year to complete.

It required an average of 132 days per building for the erection of all buildings for which permits were issued in these 10 cities. The length of time ranged from 98.4 days in the case of 1-family dwellings to 198.4 days in the case of public buildings.

Table 8 shows the number of the different kinds of residential buildings on which work was started during the calendar year of 1929

in 10 selected cities, by cost groups and by days elapsing between time work was started on the excavation and the building was completed.

TABLE 8.—NUMBER OF DIFFERENT KINDS OF RESIDENTIAL BUILDINGS STARTED DURING 1929 IN 10 SELECTED CITIES, BY COST GROUPS AND BY DAYS BETWEEN STARTING OF WORK ON EXCAVATION AND COMPLETION OF BUILDING

Days between starting excavation and completion	Number of buildings whose estimated cost was—				Total buildings	
	Under \$4,000	\$4,000 and under \$8,000	\$8,000 and under \$12,000	\$12,000 and over	Number	Per cent
<i>1-family dwellings, frame</i>						
Under 60.....	1,251	204	2	2	1,459	19.8
61 to 90.....	1,776	839	63	25	2,703	36.7
91 to 120.....	588	682	118	62	1,450	19.7
121 to 150.....	219	338	78	74	709	9.6
151 to 180.....	147	207	51	45	450	6.1
181 to 210.....	103	125	26	51	305	4.1
211 to 240.....	14	57	9	18	98	1.3
241 to 270.....	27	43	4	13	87	1.2
271 to 300.....	10	12	1	8	31	.4
301 to 330.....	10	11	4	4	29	.4
331 to 365.....	7	7	0	1	15	.2
366 to 395.....	2	10	1	1	14	.2
396 and over.....	4	15	0	1	20	.3
Total.....	4,158	2,550	357	305	7,370	100.0
<i>1-family dwellings, brick and stone</i>						
Under 60.....	8	12	2	0	22	0.4
61 to 90.....	96	145	17	5	263	4.7
91 to 120.....	207	543	72	20	842	15.0
121 to 150.....	471	651	102	45	1,269	22.6
151 to 180.....	242	438	69	54	803	14.3
181 to 210.....	406	432	33	35	906	16.2
211 to 240.....	50	437	14	29	530	9.5
241 to 270.....	87	170	11	8	276	4.9
271 to 300.....	47	209	3	4	263	4.7
301 to 330.....	0	110	1	7	118	2.1
331 to 365.....	1	127	2	11	141	2.5
366 to 395.....	11	92	1	0	104	1.9
396 and over.....	26	35	1	8	70	1.2
Total.....	1,652	3,401	328	226	5,607	100.0
<i>2-family dwellings, frame</i>						
Under 60.....	53	110	20	2	185	11.1
61 to 90.....	144	332	122	19	617	37.1
91 to 120.....	64	258	98	27	447	26.9
121 to 150.....	12	101	56	10	179	10.8
151 to 180.....	7	67	40	7	121	7.3
181 to 210.....	5	36	20	1	62	3.7
211 to 240.....	1	14	6	1	22	1.3
241 to 270.....	0	4	3	1	8	.5
271 to 300.....	1	4	2	0	7	.4
301 to 330.....	2	3	0	0	5	.3
331 to 365.....	1	3	0	1	5	.3
366 to 395.....	1	3	1	0	5	.3
396 and over.....	0	1	0	0	1	.1
Total.....	291	936	368	69	1,664	100.0

TABLE 8.—NUMBER OF DIFFERENT KINDS OF RESIDENTIAL BUILDINGS STARTED DURING 1929 IN 10 SELECTED CITIES, BY COST GROUPS AND BY DAYS BETWEEN STARTING OF WORK ON EXCAVATION AND COMPLETION OF BUILDING—Contd.

Days between starting excavation and completion	Number of buildings whose estimated cost was—				Total buildings	
	Under \$4,000	\$4,000 and under \$8,000	\$8,000 and under \$12,000	\$12,000 and over	Number	Per cent
<i>2-family dwellings, brick and stone</i>						
Under 60.....	0	1	4	1	6	.8
61 to 90.....	0	19	19	5	43	5.5
91 to 120.....	2	41	85	38	166	21.1
121 to 150.....	1	44	92	42	179	22.7
151 to 180.....	1	24	95	36	156	19.8
181 to 210.....	0	17	51	20	88	11.2
211 to 240.....	0	13	26	11	50	6.3
241 to 270.....	2	17	9	3	31	3.9
271 to 300.....	0	3	9	2	14	1.8
301 to 330.....	0	2	8	0	10	1.3
331 to 365.....	1	3	13	5	22	2.8
366 to 395.....	0	0	3	2	5	.6
396 and over.....	0	0	15	3	18	2.3
Total.....	7	184	429	168	788	100.0

Days between starting excavation and completion	Number of buildings whose estimated cost was—								Total buildings	
	Under \$50,000	\$50,000 and under \$100,000	\$100,000 and under \$200,000	\$200,000 and under \$300,000	\$300,000 and under \$400,000	\$400,000 and under \$500,000	\$500,000 and under \$1,000,000	\$1,000,000 and over	Number	Per cent

*Apartments*

Under 60.....	22	0	0	0	0	0	0	0	22	1.9
61 to 90.....	160	1	0	0	0	0	0	0	161	13.9
91 to 120.....	263	19	3	0	0	0	0	0	285	24.5
121 to 150.....	160	25	7	2	0	0	0	0	194	16.7
151 to 180.....	106	24	14	5	4	1	1	0	155	13.3
181 to 210.....	80	18	13	10	1	0	0	0	122	10.5
211 to 240.....	36	11	6	5	3	0	1	2	64	5.5
241 to 270.....	14	5	5	7	0	0	1	1	33	2.8
271 to 300.....	13	5	3	4	1	0	0	0	26	2.2
301 to 330.....	11	5	2	3	0	1	1	0	23	2.0
331 to 365.....	16	2	3	0	1	0	0	0	22	1.9
366 to 395.....	6	4	2	2	1	0	3	0	18	1.5
396 and over.....	17	3	5	4	3	4	0	1	37	3.2
Total.....	904	122	63	42	14	6	8	3	1,162	100.0

Over 76 per cent of the 1-family frame dwellings were completed within four months after work was started on the excavation for the buildings. Of the 1-family brick dwellings 20 per cent were completed within the four months. About 57 per cent of the 1-family brick dwellings, however, were completed within six months.

Two-family dwellings show practically the same situation, 75 per cent of the 2-family frame dwellings being finished within four months of the time excavation was started, and 27.4 per cent of the brick being finished within that period.

Although apartment houses averaged much higher in cost than either of the other types of dwellings, they were as a rule finished more quickly than either 1-family or 2-family brick dwellings; 40.3 per cent of all apartment houses in these 10 cities were finished within four months after the time work was started and 70.3 per cent were finished within six months.



Table 9 shows the number of nonresidential buildings on which work was started during the calendar year 1929 in these 10 cities, by cost groups and by the number of days elapsing between the date work was started on the excavation and the date the building was completed.

TABLE 9.—NUMBER OF NONRESIDENTIAL BUILDINGS STARTED DURING 1929 IN 10 SELECTED CITIES, BY COST GROUPS AND BY DAYS BETWEEN THE DATE OF STARTING WORK AND DATE OF COMPLETION

Days between starting excavation and completion	Number of buildings whose estimated cost was—								Total buildings	
	Under \$50,000	\$50,000 and under \$100,000	\$100,000 and under \$200,000	\$200,000 and under \$300,000	\$300,000 and under \$400,000	\$400,000 and under \$500,000	\$500,000 and under \$1,000,000	\$1,000,000 and over	Number	Per cent
<i>Commercial buildings</i>										
Under 60.....	603	0	2	0	0	0	0	0	605	27.9
61 to 90.....	548	4	3	1	0	1	0	0	557	25.7
91 to 120.....	326	20	9	0	1	0	0	0	356	16.4
121 to 150.....	196	31	5	0	0	0	0	0	232	10.7
151 to 180.....	123	25	3	1	1	0	0	0	153	7.1
181 to 210.....	52	14	7	6	2	0	2	0	83	3.8
211 to 240.....	28	7	9	3	1	0	1	0	49	2.3
241 to 270.....	17	4	7	1	5	1	2	0	37	1.7
271 to 300.....	8	2	3	1	1	2	1	1	19	.9
301 to 330.....	8	0	3	0	2	0	4	2	19	.9
331 to 365.....	4	3	5	0	0	0	3	1	16	.7
366 to 395.....	5	1	2	0	0	1	1	1	11	.5
396 and over..	13	3	4	3	2	2	2	2	31	1.4
Total ..	1,931	114	62	16	15	7	16	7	2,168	100.0
<i>Public buildings</i>										
Under 60.....	49	2	0	0	0	0	0	0	51	13.7
61 to 90.....	34	1	1	0	0	0	0	0	36	9.7
91 to 120.....	32	3	0	0	0	0	0	0	35	9.4
121 to 150.....	32	2	1	1	0	0	0	0	36	9.7
151 to 180.....	28	6	3	1	0	0	0	0	38	10.2
181 to 210.....	16	8	5	1	1	0	0	0	31	8.4
211 to 240.....	14	6	5	0	1	1	0	1	28	7.5
241 to 270.....	4	4	1	4	1	3	1	0	18	4.9
271 to 300.....	9	5	3	1	3	1	0	1	23	6.2
301 to 330.....	1	0	2	0	2	0	0	3	8	2.2
331 to 365.....	6	1	3	0	1	1	4	1	17	4.6
366 to 395.....	0	3	2	2	0	2	3	1	13	3.5
396 to 425.....	2	1	1	1	1	0	2	2	10	2.7
426 to 455.....	0	1	1	0	1	1	0	3	7	1.9
456 to 485.....	1	0	0	0	1	2	1	0	5	1.3
486 to 515.....	0	1	0	1	2	2	1	0	7	1.9
516 to 545.....	0	0	1	0	0	1	0	0	2	.5
546 and over..	0	2	0	0	1	1	0	2	6	1.6
Total ..	228	46	29	12	15	15	12	14	371	100.0

The nonresidential buildings are divided into two groups, namely, commercial buildings and public buildings. Commercial buildings include factories, public garages, office buildings, stores, warehouses, etc. Public buildings include buildings both of public and semi-public character, such as theaters, churches, schools, and Government city, and State buildings.

Of the commercial buildings 70 per cent were finished within four months, while 32.8 per cent of the public buildings were completed within that time. All but 1.9 per cent of the commercial buildings were completed before the expiration of a year, while it took longer than a year for the completion of 13.4 per cent of the public buildings.



## Accident Experience in the Iron and Steel Industry to the End of 1930

A DOWNWARD trend in accident frequency and severity rates for the iron and steel industry as a whole is shown by the data gathered by the Bureau of Labor Statistics for 1930, as compared with 1929. This is more pronounced in the frequency rates, which declined from 25.1 in 1929 to 18.6 in 1930 (per 1,000,000 hours' exposure), while severity rates were reduced only from 2.6 in 1929 to 2.5 in 1930 (per 1,000 hours' exposure).

Decreases in frequency rates were experienced in 17 of the 29 departments of the industry. The heaviest decrease took place in foundries, where the rate dropped from 58.5 in 1929 to 36.4 in 1930. Increases occurred in the other 12 departments: Blast furnaces, bar mills, heavy rolling mills, puddling mills, fabricating shops, forge shops, wire drawing, nails and staples, car wheels, docks and ore yards, electrical, and power houses. The increases were mostly small, but ranged as high as 13.1 accidents per 1,000,000 hours' exposure, for puddling mills. Severity rates decreased in 14 departments and increased in 13 departments, while no change took place in the other 2 departments.

The data available for the annual review of the accident experience in the iron and steel industry have for several years been presented in two sections. The first section covers all establishments from which information could be obtained, including the identical establishments in the second section. The number of establishments in this group varies from year to year with the constant attempt to secure data from establishments which have not reported previously.

The second section covers the experience of a group of identical establishments engaged primarily in the production of fabricated products, sheets, wire and its products, tubes, and miscellaneous steel products. These establishments, which constitute about 30 per cent of the industry, were pioneers in accident-prevention work and have maintained an energetic effort to reduce accident rates.

### Experience in the Industry as a Whole

THE first industrial-accident data assembled on a large scale by the Bureau of Labor Statistics were in connection with a survey in the iron and steel industry in 1910, at which time information was collected as far back as 1907, where records were available. Through the cooperation of the industry such information has been continually collected since then and published from time to time.

A remarkable decline has taken place in accident rates for the industry since 1907, the first year for which figures were obtained. In 1907 the workers were killed or injured at the rate of 80.8 for every million man-hours of exposure (frequency rate), and for every thousand man-hours of exposure 7.2 days were lost as a result of accidents (severity rate). In 1930 the frequency rate had been reduced to 18.6 accidents per 1,000,000 man-hours of exposure, a decrease of 77 per cent, and the severity rate to 2.5 days lost per 1,000 man-hours of exposure, a decrease of 65.3 per cent.

The reduction was not uniform in the various departments, but separate figures were not compiled for each department during the early years, so the changes from 1907 to 1930 can be determined only for 10 departments. These changes are presented in Table 1, together with changes for the other departments since the first year data were collected for them.

TABLE 1.—CHANGES IN FREQUENCY AND SEVERITY RATES SINCE THE FIRST YEAR DATA WERE COLLECTED, BY DEPARTMENT AND YEAR

Department and year	Frequency rates (per 1,000,000 hours' exposure)	Severity rates (per 1,000 hours' exposure)	Department and year	Frequency rates (per 1,000,000 hours' exposure)	Severity rates (per 1,000 hours' exposure)
The industry:			Wire drawing:		
1907	80.8	7.2	1910	77.6	4.3
1930	18.6	2.5	1930	11.4	1.7
Blast furnaces:			Woven-wire fence:		
1908	101.3	16.0	1915	65.2	1.7
1930	22.4	5.0	1930	4.0	2.2
Bessemer converters:			Nails and staples:		
1907	134.0	5.4	1915	41.8	3.3
1930	9.7	3.4	1930	9.0	.4
Open hearths:			Hot mills:		
1907	104.5	14.4	1923	43.5	1.5
1930	14.4	3.6	1930	10.2	1.1
Foundries:			Cold rolling:		
1907	65.0	3.4	1926	38.7	1.2
1930	36.4	3.0	1930	25.5	2.7
Bar mills:			Axle works:		
1915	60.3	1.9	1915	38.3	3.4
1930	31.6	2.4	1930	42.4	1.3
Heavy rolling mills:			Car wheels:		
1907	65.3	4.8	1915	22.3	1.0
1930	11.5	2.2	1930	72.6	3.2
Plate mills:			Coke ovens:		
1907	113.7	9.1	1915	27.1	3.3
1930	10.0	2.3	1930	5.0	2.6
Puddling mills:			Erection of structural steel:		
1917	47.1	1.7	1915	110.4	25.4
1930	47.5	1.5	1930	60.5	17.9
Rod mills:			Docks and ore yards:		
1915	38.6	1.2	1915	26.1	2.4
1930	9.3	3.4	1930	10.7	8.6
Sheet mills:			Electrical departments:		
1907	44.8	4.1	1910	62.7	4.2
1930	12.9	1.3	1930	6.9	2.8
Tube mills:			Mechanical departments:		
1907	96.4	3.1	1908	91.3	6.6
1930	16.9	1.8	1930	13.3	2.8
Unclassified rolling mills:			Power houses:		
1910	113.7	5.0	1917	16.4	4.4
1930	17.5	2.6	1930	8.0	.4
Fabricating shops:			Yards:		
1907	94.4	9.5	1907	66.6	7.5
1930	28.3	2.9	1930	8.3	3.3
Forge shops:			Unclassified:		
1917	80.4	4.4	1915	43.3	2.7
1930	36.1	2.7	1930	17.5	1.8

Further details are given in the three tables following. Table 2 presents the yearly experience for the industry from 1907 to 1930, presenting the respective number of full-year workers, with the number of accidents, frequency rates, and severity rates, by extent of disability.

TABLE 2.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, 1907 TO 1930, BY YEAR AND EXTENT OF DISABILITY

Year	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Perma- nent disa- bility	Tem- porary disa- bility	Total	Death	Perma- nent disa- bility	Tem- porary disa- bility	To- tal	Death	Perma- nent disa- bility	Tem- porary disa- bility	To- tal
1907	27,632	61	106	6,530	6,697	0.7	1.3	78.8	80.8	4.4	1.7	1.1	7.2
1910	202,157	327	848	44,108	45,283	.5	1.4	72.7	74.7	3.2	1.2	.8	5.2
1911	231,544	204	931	34,676	35,811	.3	1.3	49.9	51.5	1.8	1.1	.6	3.5
1912	300,992	348	1,241	54,575	56,164	.4	1.4	60.4	62.2	2.3	1.1	.8	4.2
1913	319,919	426	1,200	55,556	57,182	.4	1.3	57.9	59.6	2.7	.9	.7	4.3
1914	256,299	219	860	37,390	38,469	.3	1.1	48.6	50.0	1.7	.9	.6	3.2
1915	116,224	87	372	13,481	13,940	.2	1.1	38.7	40.0	1.5	.7	.5	2.7
1916	166,646	159	728	20,655	21,542	.3	1.4	41.3	43.0	1.9	1.0	.6	3.5
1917	410,852	523	1,268	57,094	58,885	.4	1.0	46.3	47.7	2.5	.9	.6	4.0
1918	474,435	543	1,253	54,293	56,089	.4	.9	38.1	39.4	2.3	.8	.5	3.6
1919	377,549	419	848	41,009	42,276	.4	1.0	40.2	41.6	2.2	.8	.6	3.6
1920	442,685	327	1,084	49,482	50,893	.2	.8	37.3	38.3	1.5	.8	.4	2.7
1921	237,094	156	527	21,279	21,962	.2	.7	29.0	30.8	1.3	.7	.5	2.5
1922	335,909	236	878	32,120	33,234	.2	.9	31.9	33.0	1.4	.8	.5	2.7
1923	434,693	314	1,188	41,766	43,268	.2	.9	32.1	33.2	1.4	.8	.5	2.7
1924	389,438	312	1,133	34,481	35,920	.3	1.0	29.5	30.8	1.6	.9	.5	3.0
1925	443,158	277	1,091	36,404	37,772	.2	.8	27.3	28.3	1.2	.8	.4	2.5
1926	436,251	322	1,202	31,564	33,088	.2	.9	24.1	25.2	1.7	.8	.4	2.9
1927	395,707	245	1,033	22,060	23,338	.2	.9	18.6	19.7	1.2	.8	.3	2.3
1928	418,163	229	993	23,434	24,656	.2	.8	18.7	19.7	1.1	.8	.4	2.2
1929	500,941	304	1,761	35,637	37,702	.2	1.2	23.7	25.1	1.2	1.0	.4	2.6
1930	408,690	242	1,193	21,410	22,845	.2	1.0	17.5	18.6	1.2	.9	.4	2.5

The varying size of the working group from year to year is due, with three exceptions, to changing industrial conditions. Only a few firms were able to supply records for 1907; but as conditions in their establishments were practically typical, such data were included because it clearly indicated a still less satisfactory condition than existed in 1910. In 1915 and 1916 it was not possible to secure complete data.

Frequency rates, which declined fairly constantly from 1907 to 1927 and 1928 but increased again in 1928, were lower for 1930 than for any previous year. They declined from 25.1 for 1929 to 18.6 for 1930, a decrease of 25.9 per cent. Severity rates reached the lowest level in 1928, but rose again in 1929. They declined from 2.6 for 1929 to 2.5 for 1930, a decrease of 3.8 per cent, but were not reduced to the 1928 level.

Table 3 presents the frequency and severity rates for each of the departments in the industry for each year for which separate data were collected.



TABLE 3.—ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, BY DEPARTMENT AND YEAR

*Frequency rates (per 1,000,000 hours exposure)*

Year	Blast fur- naces	Besse- mer con- verters	Open- hearth fur- naces	Found- ries	Bar mills	Heavy rolling mills	Plate mills	Pud- dling mills	Rod mills	Sheet mills
1907		134.0	104.5	65.0		65.3	113.7			41.8
1908	101.3									
1910	87.9	130.2	106.4	53.2		79.2	64.5			61.0
1911	52.9	81.9	60.8	50.4		45.4	46.3			41.6
1912	60.8	99.1	80.4	66.8		50.3	59.7			58.0
1913	59.8	80.7	72.8	72.8		37.6	46.2			49.0
1914	51.0	53.3	65.8	66.4		26.8	32.0			47.8
1915	31.8	54.5	48.0	30.5	60.3	29.4	20.9		38.6	39.6
1916	41.2	73.4	52.0	41.2	87.4	33.4	32.3		36.7	36.8
1917	42.5	68.9	51.5	73.0	88.4	30.9	39.0	47.1	49.1	34.0
1918	36.4	51.4	52.5	58.1	45.2	33.5	50.9	46.4	37.5	18.5
1919	39.7	44.8	47.4	56.8	50.5	33.8	36.0	29.0	26.6	32.7
1920	31.1	36.8	38.3	64.2	45.3	27.0	33.0	42.2	31.6	41.0
1921	26.0	25.4	29.0	60.6	40.7	17.1	23.8		21.0	36.7
1922	30.8	17.8	33.8	61.6	36.1	18.7	32.7		25.4	41.3
1923	31.7	21.5	30.2	63.2	37.8	18.6	26.4	58.2	21.4	28.5
1924	31.3	19.7	30.4	62.4	24.0	21.5	27.1	65.5	15.9	29.7
1925	24.3	9.2	27.3	65.9	25.4	16.3	22.8	51.7	17.7	32.9
1926	25.5	14.8	21.8	60.6	17.2	10.6	19.6	43.7	16.8	22.8
1927	22.8	6.8	17.2	52.8	31.1	10.0	12.4	38.8	11.8	15.0
1928	21.3	7.8	15.3	45.9	61.2	9.0	14.1	40.3	12.8	21.1
1929	22.3	12.2	19.1	58.5	20.1	8.9	17.8	34.4	21.0	23.1
1930	22.4	9.7	14.4	36.4	31.6	11.5	10.0	47.5	9.3	12.9

Year	Tube mills	Unclas- sified rolling mills	Fabri- cating shops	Forge shops	Wire draw- ing	Woven- wire fence	Nails and staples	Hot mills	Cold rolling	Axle works
1907	96.4		94.4							
1910	55.9	113.7	150.9		77.6					
1911	52.0	54.7	57.1		61.4					
1912	43.7	69.1	81.0		69.9					
1913	29.6	73.5	82.1		68.1					
1914	29.7	52.9	67.0		52.1					
1915	9.6	37.5	42.7		80.3	65.2	41.8			38.3
1916	13.4	39.2	49.3		65.3	40.7	39.7			15.2
1917	34.3	51.6	60.4	80.4	42.9	28.3	28.8			37.9
1918	21.1	36.9	58.6	54.8	27.5	17.9	23.1			87.6
1919	21.3	40.2	47.9	40.4	25.1	9.9	10.8			36.1
1920	33.1	45.4	54.2	59.4	33.2	16.4	24.2			44.8
1921	20.0	42.0	52.2	41.0	20.6	30.0	19.0			17.9
1922	23.5	42.7	70.7	53.5	21.6	19.8	18.5			7.5
1923	18.2	37.1	60.3	51.9	21.9	26.6	18.5	43.5		12.9
1924	18.4	34.9	29.4	84.5	21.8	17.6	14.9	37.1		15.4
1925	15.8	24.1	19.0	79.8	23.9	27.6	16.2	40.1		4.6
1926	17.0	23.2	18.0	50.0	16.0	22.3	16.7	65.7	38.7	1.3
1927	15.6	21.6	7.1	24.1	11.1	13.6	8.4	26.3	38.4	(1)
1928	14.5	14.5	13.0	17.2	10.3	13.0	10.5	29.0	33.2	3.5
1929	18.5	23.9	25.9	27.8	6.2	10.5	6.1	11.7	30.5	56.4
1930	16.9	17.5	28.3	36.1	11.4	4.0	9.0	10.2	26.5	42.4

<sup>1</sup> Included under unclassified.

TABLE 3.—ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, BY DEPARTMENT AND YEAR—Continued

Frequency rates (per 1,000,000 hours' exposure)—Continued

Year	Car wheels	Coke ovens <sup>1</sup>	Structural steel erection	Docks and ore yards	Electrical departments	Mechanical departments	Power houses	Yards	Unclassified
1907								66.6	
1908						91.3			
1910					62.7	56.4		44.8	
1911					44.5	58.0		51.0	
1912					47.7	64.2		60.4	
1913					43.5	70.9		54.2	
1914					45.1	60.5		43.2	
1915	22.3	27.1	110.4	20.1	13.5	33.6		37.5	43.3
1916	159.0	24.4	87.0	35.9	61.3	46.1		42.3	38.6
1917	66.1	27.3	135.3	76.4	45.8	53.7	16.4	40.4	39.3
1918	60.4	24.7	101.8	33.5	35.5	36.0	24.6	33.0	35.2
1919	75.1	24.7	92.0	42.7	36.1	37.9	18.4	36.1	30.7
1920	47.7	10.6	121.7	13.3	30.6	37.2	12.9	26.6	36.7
1921	58.6	10.8	103.0	15.6	21.2	23.6	11.2	25.7	28.9
1922	23.6	10.7	76.2	16.0	16.0	19.0	11.9	23.7	29.9
1923	35.8	16.3	89.2	11.1	17.6	19.4	10.4	29.4	35.3
1924	43.4	12.4	102.7	15.7	15.4	18.9	12.6	26.1	30.0
1925	25.8	7.0	71.2	7.7	13.2	16.6	15.0	34.3	27.7
1926	14.5	9.9	85.3	.8	10.4	17.0	6.0	17.4	25.7
1927	12.7	7.0	58.8	1.8	8.6	12.5	9.1	10.0	21.7
1928	3.9	5.7	61.8	6.2	6.3	7.8	3.1	8.8	21.7
1929	72.1	6.0	67.2	8.9	5.8	15.6	5.0	11.4	24.8
1930	72.6	5.0	60.5	10.7	6.9	13.3	8.0	8.3	17.5

Severity rates (per 1,000 hours' exposure)

Year	Blast furnaces	Bessemer converters	Open-hearth furnaces	Foundries	Bar mills	Heavy rolling mills	Plate mills	Puddling mills	Rod mills	Sheet mills
1907		5.4	14.4	3.4		4.8	9.1			4.1
1908	16.0									
1910	9.6	10.4	9.8	2.4		6.5	6.6			4.3
1911	6.5	4.5	5.4	4.3		3.0	3.9			1.8
1912	7.2	5.3	8.2	4.4		3.9	3.6			2.6
1913	7.2	7.0	5.8	3.7		2.9	2.9			2.7
1914	5.2	4.3	4.5	3.3		2.9	2.6			2.0
1915	4.5	3.5	4.2	.6	1.9	4.1	1.9		1.2	1.7
1916	4.6	9.7	4.2	2.9	4.2	3.2	2.5		2.4	1.6
1917	5.8	9.2	6.4	4.7	4.0	4.4	2.6	1.7	4.7	1.9
1918	6.2	6.2	7.9	3.2	3.5	3.8	3.0	3.2	4.7	1.0
1919	7.2	5.7	6.8	2.7	1.6	3.9	2.5	.5	3.5	1.1
1920	4.0	2.3	4.3	2.3	1.2	2.0	2.5	2.4	1.4	2.3
1921	3.9	3.1	2.3	2.7	1.6	1.2	2.0		1.0	1.6
1922	5.1	1.6	3.6	2.7	5.0	2.5	2.0		1.8	2.5
1923	4.2	3.0	5.2	3.0	1.3	2.1	2.7	2.1	2.2	2.2
1924	5.6	3.7	4.4	3.0	1.7	3.9	2.6	2.4	1.8	1.7
1925	4.4	4.6	3.7	3.7	2.2	3.0	3.7	3.7	2.7	1.7
1926	4.5	7.7	6.3	3.3	1.4	2.0	2.5	3.5	2.7	1.2
1927	4.5	2.3	4.3	2.9	1.7	2.4	1.9	.9	1.2	.8
1928	3.3	2.0	3.4	1.8	4.7	1.5	1.4	2.9	2.0	1.8
1929	3.8	3.7	4.4	3.5	1.7	2.2	2.6	.5	4.0	1.8
1930	5.0	3.4	3.6	3.0	2.4	2.2	2.3	1.5	3.4	1.3

<sup>1</sup> Only those operated in connection with steel works.

TABLE 3.—ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, BY DEPARTMENT AND YEAR—Continued

Severity rates (per 1,000 hours' exposure)—Continued

Year	Tube mills	Unclassified rolling mills	Fabricating shops	Forge shops	Wire drawing	Woven-wire fence	Nails and staples	Hot mills	Cold rolling	Axle works
1907	3.1		9.5							
1910	1.7	5.0	5.4		4.3					
1911	1.5	3.3	2.3		3.2					
1912	2.6	3.4	3.8		3.8					
1913	2.7	4.1	3.8		2.7					
1914	2.0	2.5	2.9		2.2					
1915	1.4	1.8	2.9		3.5	1.7	3.3			3.4
1916	1.0	2.5	4.4		4.3	3.4	2.4			.1
1917	2.6	2.1	3.1	4.4	2.0	2.5	3.3			.9
1918	1.6	2.2	2.6	3.0	2.2	1.2	1.4			5.0
1919	1.9	2.1	1.5	2.7	1.4	2.3	.6			.7
1920	2.1	2.9	3.3	1.5	2.5	3.1	.9			.7
1921	1.4	2.3	2.1	3.9	2.7	1.2	2.1			8.7
1922	1.6	2.6	3.3	5.2	2.1	1.1	2.4			.1
1923	1.5	2.7	2.2	2.6	1.9	1.9	2.2	1.5		.1
1924	2.1	2.9	1.8	2.7	2.1	1.5	1.2	1.4		4.3
1925	1.7	1.6	1.7	3.3	1.9	.6	1.8	2.3		.1
1926	1.5	1.5	2.3	1.1	1.6	.8	.3	6.8	1.2	6.0
1927	1.6	3.0	1.1	2.8	2.0	1.1	.2	1.0	2.2	(1)
1928	1.3	2.2	1.4	2.0	2.1	2.3	.9	.9	1.0	.8
1929	1.8	2.4	3.3	4.5	2.1	.7	.1	.8	3.1	1.2
1930	1.8	2.6	2.9	2.7	1.7	2.2	.4	1.1	2.7	1.3

Year	Car wheels	Coke ovens <sup>2</sup>	Structural steel erection	Docks and ore yards	Electrical departments	Mechanical departments	Power houses	Yards	Unclassified
1907								7.5	
1908						6.6			
1910					4.2	3.7		6.5	
1911					3.6	3.3		5.0	
1912					5.3	3.8		6.3	
1913					8.7	4.8		6.4	
1914					8.4	3.7		4.5	
1915	1.0	3.3	25.4	2.4	3.6	2.1		1.4	2.7
1916	8.5	5.5	23.2	38.6	8.5	3.2		5.9	3.4
1917	5.9	8.7	27.0	13.0	9.3	4.4	4.4	6.9	3.1
1918	1.7	5.4	19.6	6.0	5.7	3.3	5.8	5.8	2.9
1919	3.2	3.7	15.5	10.9	7.0	3.4	5.7	7.4	2.6
1920	1.5	2.4	25.9	8.3	2.7	2.6	1.9	3.4	2.8
1921	4.9	1.1	20.2	.5	2.2	2.5	1.9	4.4	2.6
1922	.6	1.0	21.1	30.1	2.8	2.6	.9	4.8	2.2
1923	2.8	3.0	9.4	4.1	3.0	3.3	3.4	5.2	2.5
1924	2.9	3.5	25.1	14.7	5.2	2.6	3.0	3.8	2.8
1925	1.9	2.2	22.4	10.6	3.9	2.7	2.0	5.3	1.8
1926	2.0	4.4	32.0	2.9	3.2	2.5	2.2	4.9	2.0
1927	3.9	2.0	9.5	3.5	4.4	2.1	.3	3.9	2.1
1928	3.5	2.1	27.6	2.0	4.2	2.1	.7	3.0	2.2
1929	2.8	2.2	25.7	5.9	3.9	2.7	.5	2.7	2.2
1930	3.2	2.6	17.9	8.6	2.8	2.8	.4	3.3	1.8

<sup>1</sup> Included under unclassified.<sup>2</sup> Only those operated in connection with steel works.

Frequency rates were lower in 17 departments in 1930 than in 1929, with decreases ranging from 8.6 per cent for tube mills to 61.9 per cent for woven-wire fence, and higher in 12 departments, with increases ranging from less than one-half of 1 per cent for blast furnaces to 83.9 per cent for wire drawing.

Severity rates were lower in 14 departments in 1930 than in 1929, with decreases ranging from 8.1 per cent for Bessemer converters to 40 per cent for forge shops, and higher in 13 departments, with increases ranging from 3.7 per cent for mechanical departments to 300



per cent for nails and staples. In the other two departments the rates remained stationary.

It should be noted that percentage increases or decreases do not give any idea of the relations of the departments, and that the rates as found in the tables must be compared, because they represent the actual conditions existing.

While the exposure for the individual years is of considerable volume it is naturally affected by local and temporary conditions, such as a catastrophic occurrence, so that a more satisfactory picture of the trend in accident rates is presented by combining exposures and accidents for several years. Table 4, which shows a 5-year moving average for the industry as a whole and for specified important departments, from 1907 to 1930, affords a comparison of the relation between these departments and the industry.

TABLE 4.—ACCIDENT RATES FOR THE IRON AND STEEL INDUSTRY AND FOR SPECIFIED IMPORTANT DEPARTMENTS, BY 5-YEAR PERIODS

Period	The in- dustry	Blast furnaces	Bessemer conver- ters	Open hearth	Foun- dries	Heavy rolling mills	Plate mills	Sheet mills
Frequency rates (per 1,000,000 hours' exposure)								
1907-1911.....	69.2	76.1	101.5	84.2	60.1	61.0	69.4	44.1
1908-1912.....	65.1	67.7	79.5	79.5	61.5	57.0	60.8	47.9
1909-1913.....	62.1	62.4	92.3	78.6	65.1	51.7	55.9	49.1
1910-1914.....	59.2	62.3	89.8	75.0	63.6	46.1	49.9	51.1
1911-1915.....	53.3	50.3	65.0	67.6	59.3	39.4	44.7	48.1
1912-1916.....	51.3	47.8	76.1	64.8	57.8	37.3	41.5	47.4
1913-1917.....	48.2	41.4	68.3	58.4	60.4	32.1	36.6	41.3
1914-1918.....	43.6	40.5	60.7	53.5	57.0	31.1	39.8	35.8
1915-1919.....	41.6	39.0	57.7	50.5	61.0	32.4	39.2	32.7
1916-1920.....	41.1	38.0	53.1	50.2	61.0	31.4	38.4	33.7
1917-1921.....	39.5	36.3	47.0	44.8	63.1	29.9	37.6	33.4
1918-1922.....	36.5	34.0	39.9	41.3	60.4	27.6	36.7	35.2
1919-1923.....	34.9	32.9	30.5	33.0	61.7	23.8	31.4	37.2
1920-1924.....	33.6	30.7	24.9	32.9	62.7	21.2	29.4	35.1
1921-1925.....	31.3	29.0	17.0	29.9	63.1	18.1	26.8	33.2
1922-1926.....	29.9	28.7	16.7	28.3	62.8	16.6	25.6	30.6
1923-1927.....	24.7	24.6	13.5	22.9	55.1	13.2	19.2	22.9
1924-1928.....	27.4	27.1	15.3	24.7	59.8	14.4	21.8	26.7
1925-1929.....	20.5	22.0	13.7	22.6	59.5	12.1	19.9	25.2
1926-1930.....	21.9	23.1	10.4	17.6	51.1	10.0	15.2	19.4
Severity rates (per 1,000 hours' exposure)								
1907-1911.....	5.0	10.6	7.6	7.5	2.7	4.4	5.1	3.1
1908-1912.....	4.3	8.8	7.4	6.6	3.1	4.2	4.1	2.8
1909-1913.....	4.4	8.3	6.7	6.8	3.5	4.0	3.8	3.0
1910-1914.....	4.1	7.0	6.4	6.6	3.6	3.6	3.9	2.6
1911-1915.....	3.6	6.2	5.3	5.8	3.3	3.4	3.1	2.2
1912-1916.....	3.7	5.8	6.1	5.5	3.1	3.5	2.8	2.3
1913-1917.....	3.7	5.6	7.1	5.1	3.3	3.6	2.6	2.1
1914-1918.....	3.5	5.4	7.3	5.8	3.2	3.4	2.6	1.8
1915-1919.....	3.6	5.8	6.9	6.5	3.4	3.9	2.5	1.5
1916-1920.....	3.5	5.7	6.3	6.3	3.2	3.5	2.6	1.8
1917-1921.....	3.4	5.7	5.4	5.8	3.2	3.3	2.5	1.7
1918-1922.....	3.1	5.5	4.2	5.3	2.7	2.9	2.5	1.8
1919-1923.....	3.0	5.0	3.2	4.2	2.7	2.4	2.4	1.9
1920-1924.....	2.8	4.5	2.6	4.2	2.8	2.3	2.4	2.1
1921-1925.....	2.7	4.6	3.2	4.0	3.1	2.6	2.6	1.9
1922-1926.....	2.8	4.7	4.0	4.6	3.2	2.6	2.6	1.8
1923-1927.....	2.4	4.1	3.7	4.3	2.9	2.4	2.2	1.0
1924-1928.....	2.7	4.4	4.1	4.5	3.0	2.4	2.4	1.7
1925-1929.....	2.6	4.2	4.2	4.6	3.0	2.1	2.5	1.6
1926-1930.....	2.4	4.2	3.8	4.4	3.0	2.1	2.1	1.4

Contrasting the period 1907-1911 with that of 1926-1930, it is seen that the industry as a whole and all departments except foundries present a notable decline in frequency rates. The decreases were as follows: Blast furnaces from 76.1 to 23.1; Bessemer converters from 101.5 to 10.4; open hearths from 84.2 to 17.6; heavy rolling mills from 61 to 10; plate mills from 69.4 to 15.2; and sheet mills from 44.1 to 19.4. For the industry as a whole the rate declined from 69.2 to 21.9. In foundries, which showed a comparatively low rate for the early period, 60.1, the rate did not keep pace with that of the other departments. The period changes were irregular and any decided tendency to decline was not noticeable until the 1926-1930 period, when the rate was decreased to 51.1, and this rate is conspicuous by being more than double the rate for blast furnaces, which is the next highest.

Severity rates declined from 1907-1911 to 1926-1930 in the industry as a whole and in all departments except foundries. The decreases were as follows: Blast furnaces from 10.6 to 4.2; Bessemer converters from 7.6 to 3.8; open hearths from 7.5 to 4.4; heavy rolling mills from 4.4 to 2.1; plate mills from 5.1 to 2.1; and sheet mills from 3.1 to 1.4. For the industry as a whole the rate declined from 5 to 2.4. As in frequency rates, severity rates in foundries did not follow the general trend. While it presented the lowest rate for any of the departments in the earliest period, 2.7, the rate fluctuated from that point to 3.6 during the various periods, and the figure of 3 for 1926-1930 is an increase over the initial figure.

The period 1926-1930 shows increases in frequency rates over the 1925-1929 period for the industry as a whole and for blast furnaces, but reductions for the other departments. Decreases in severity rates are shown for the industry as a whole and for four of the departments, with no change for the other three departments.

#### Experience in the Industry, by States, 1922-1930

ACCIDENT frequency and severity rates in the iron and steel industry by individual States, from 1922 to 1930, are presented in Table 5 for 19 States. Several States were omitted, to avoid identification of establishments or because the exposure was less than 1,000 full-year workers.

A downward trend in frequency rates is shown by all but one of the States, and severity rates show a reduction in the majority of the States. The declining tendency is more pronounced in those States where accident-prevention activities have existed the longest and have been most extensive. Operations in the industry are, however, not uniform in the various States, and in some States the more hazardous operations predominate.

# ACCIDENT EXPERIENCE—IRON AND STEEL INDUSTRY

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TABLE 5.—ACCIDENT FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY, 1922 TO 1930, BY STATE AND YEAR

State and year	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Perma- nent dis- ability	Tempo- rary dis- ability	Total	Death	Perma- nent dis- ability	Tempo- rary dis- ability	Total	Death	Perma- nent dis- ability	Tempo- rary dis- ability	Total
Alabama:													
1922	10,998	10	51	1,163	1,224	0.3	1.6	35.3	37.1	1.8	1.2	0.5	3.5
1923	11,915	7	78	1,348	1,433	.2	2.2	37.7	40.1	1.2	1.8	.9	3.8
1924	13,705	16	41	1,127	1,184	.4	1.0	27.4	28.8	2.3	1.1	.6	4.0
1925	15,244	14	46	508	568	.3	1.0	12.1	13.4	1.8	1.4	.2	3.4
1926	19,887	30	130	1,370	1,530	.5	2.2	23.0	25.6	3.0	1.6	.4	5.0
1927	14,493	12	7	809	898	.3	1.8	18.6	20.7	1.7	1.4	.4	3.5
1928	13,258	16	76	954	1,046	.4	.2	24.0	26.3	2.4	1.6	.6	4.7
1929	16,162	11	93	1,395	1,500	.2	1.9	28.8	30.9	1.4	1.4	.4	3.2
1930	15,073	12	89	1,246	1,347	.3	2.0	27.5	29.8	1.6	2.0	.6	4.2
California:													
1922	4,013	3	35	711	749	.3	2.9	59.1	62.2	1.5	2.6	.8	4.9
1923	3,113	3	11	597	611	.3	1.2	63.9	65.4	1.9	1.2	.8	3.9
1924	2,901	2	16	522	540	.2	1.8	60.0	62.0	1.4	1.4	1.3	4.2
1925	3,018	1	10	278	289	.1	1.1	30.7	31.9	.7	1.6	.7	2.9
1926	2,908	0	16	825	841	—	1.9	95.9	97.8	—	2.1	1.2	3.3
1927	1,370	0	4	225	229	—	1.0	54.8	55.7	—	1.0	.9	1.9
1928	4,660	1	14	1,209	1,224	.1	1.0	86.5	87.6	.4	1.1	1.1	2.6
1929	6,360	7	39	1,221	1,267	.4	2.0	64.0	66.4	2.2	2.2	1.4	5.8
1930	5,351	3	12	665	680	.2	.7	41.2	42.2	1.1	.8	.5	2.4
Colorado:													
1922	3,351	3	2	367	372	.3	.2	36.5	37.0	1.8	.3	.4	2.4
1923	4,164	7	13	462	482	.6	1.0	37.0	38.6	3.4	1.2	.8	5.3
1924	4,269	6	22	452	480	.5	1.7	35.3	37.5	2.8	1.5	.6	5.0
1925	4,243	3	14	592	609	.2	1.1	46.5	47.8	1.4	.9	.8	3.1
1926	4,507	2	13	668	683	.2	1.0	49.5	50.6	.9	1.2	.7	2.8
1927	4,074	6	27	474	507	.5	2.2	38.8	41.5	3.0	1.8	.5	5.2
1928	3,439	2	16	502	520	.2	1.6	48.7	50.4	1.2	1.8	.6	3.6
1929	4,764	3	32	506	541	.2	2.2	35.4	37.8	1.3	2.6	.6	4.5
1930	3,283	4	9	263	276	.4	.9	26.7	28.0	2.4	1.0	.5	3.9
Connecticut:													
1922	3,778	3	22	510	535	.3	1.9	45.0	47.2	1.6	1.4	.7	3.6
1923	5,307	5	34	446	485	.3	2.1	28.0	30.5	1.9	1.6	.3	3.7
1924	5,639	6	40	522	568	.4	2.4	30.9	33.6	2.1	1.3	.4	3.9
1925	7,263	5	49	778	832	.2	2.2	35.7	38.2	1.4	.3	.4	2.0
1926	2,908	1	47	366	414	.1	5.4	42.1	47.6	.7	2.5	.7	3.8
1927	4,458	1	27	276	304	.1	2.0	20.1	22.1	.4	1.6	.3	2.4
1928	5,997	1	15	402	418	.1	.8	22.3	23.2	.3	.7	.3	1.3
1929	7,579	0	46	449	495	—	2.0	19.7	21.7	—	1.7	.3	2.0
1930	5,039	1	27	315	343	.1	1.8	20.8	22.6	.4	1.0	.4	1.8
Illinois:													
1922	23,926	16	95	2,370	2,481	.2	1.3	33.0	34.6	1.3	1.0	.4	2.8
1923	40,097	39	171	3,753	3,963	.3	1.4	31.2	32.9	2.0	1.6	.6	4.1
1924	38,147	21	126	2,934	3,081	.2	1.1	26.3	27.6	1.1	1.0	.2	2.3
1925	35,810	20	120	2,551	2,691	.2	1.1	23.8	25.1	1.1	1.3	.4	2.8
1926	37,574	25	114	2,916	3,055	.2	1.0	25.9	27.1	1.3	.8	.4	2.5
1927	49,576	20	124	1,611	1,755	.1	.8	10.8	11.8	.8	.8	.2	1.8
1928	30,171	14	132	1,761	1,907	.2	1.5	19.5	21.1	.9	1.5	.4	2.8
1929	47,548	16	221	3,453	3,690	.1	1.5	24.3	25.9	.7	1.8	.4	2.9
1930	40,819	28	209	2,194	2,431	.2	1.7	17.9	19.8	1.4	1.8	.3	3.5
Indiana:													
1922	36,683	18	113	2,200	2,331	.2	1.0	20.1	21.2	1.0	1.0	.3	2.2
1923	22,887	12	67	1,746	1,825	.2	1.0	25.4	26.6	1.1	.9	.3	2.3
1924	34,846	30	69	1,591	1,690	.3	.7	15.2	16.2	1.7	.8	.3	2.8
1925	32,743	25	86	2,110	2,221	.3	.9	21.5	22.6	1.5	.7	.3	2.6
1926	38,735	42	133	1,405	1,580	.4	1.1	12.1	13.6	2.2	1.0	.2	3.4
1927	43,120	13	92	1,302	1,407	.1	.7	10.1	10.9	.6	.6	.2	1.4
1928	31,921	13	109	913	1,035	.1	1.1	9.5	10.8	.8	.9	.2	1.9
1929	45,384	28	152	1,777	1,957	.2	1.1	13.1	14.4	1.2	.9	.3	2.4
1930	38,485	9	84	1,075	1,168	.1	.7	9.2	10.0	.5	.6	.2	1.3
Kentucky:													
1922	1,396	2	10	477	489	.5	2.4	113.9	116.8	1.4	2.9	1.8	6.1
1923	2,601	5	18	899	922	.6	2.3	115.2	118.2	3.8	4.3	.9	9.0
1924	1,734	1	9	144	154	.2	1.7	27.7	29.6	1.2	1.6	.4	3.1
1925	2,550	13	15	193	221	1.7	2.0	25.2	28.9	10.2	1.8	.4	12.4
1926	3,744	3	30	273	300	.3	2.7	24.4	27.3	1.6	2.6	.3	4.4
1927	4,450	5	26	295	326	.4	2.0	22.1	24.4	2.3	1.6	.4	4.2
1928	4,909	5	30	276	311	.3	2.0	18.7	21.1	2.0	3.1	.3	5.4
1929	5,264	4	22	340	366	.3	1.4	21.5	23.2	1.5	1.5	.3	3.3
1930	3,154	1	7	138	146	.1	.7	14.6	15.5	.6	.7	.2	1.5



TABLE 5.—ACCIDENT FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY, 1922 TO 1930, BY STATE AND YEAR—Continued

State and year	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Perma- nent dis- ability	Tempo- rary dis- ability	Total	Death	Perma- nent dis- ability	Tempo- rary dis- ability	Total	Death	Perma- nent dis- ability	Tempo- rary dis- ability	Total
Maryland:													
1927	10,973	18	15	1,080	1,113	0.6	0.5	32.8	33.8	3.3	0.5	0.6	4.4
1928	12,149	8	17	770	795	.3	.5	21.1	21.8	1.3	.9	.4	2.6
1929	12,424	16	40	718	774	.4	1.1	19.3	20.8	2.6	1.3	.5	4.4
1930	11,360	10	67	441	518	.3	2.0	12.8	15.0	1.8	1.5	.4	3.7
Massachusetts:													
1922	5,610	7	29	337	373	.4	1.7	19.9	22.0	2.5	1.6	.5	4.7
1923	5,018	4	26	230	260	.3	1.7	15.3	17.3	1.6	1.1	.6	3.2
1924	7,580	3	22	246	271	.1	1.0	10.8	11.9	.8	1.6	.3	2.6
1925	6,645	1	7	126	134	.1	.4	6.3	6.7	.3	.3	.2	.8
1926	7,150	5	18	247	270	.2	.8	11.5	12.5	1.4	.8	.3	2.5
1927	7,230	5	13	229	247	.2	.6	10.6	11.4	1.4	.6	.3	2.2
1928	6,723	2	21	171	194	.1	1.0	8.5	9.6	.6	.8	.2	1.6
1929	8,940	3	38	623	664	.1	1.4	23.3	24.8	.7	.9	.6	2.2
1930	7,267	5	23	330	358	.2	1.1	15.1	16.4	1.2	.6	.4	2.3
Michigan:													
1922	3,928	6	16	916	938	.5	1.4	77.7	79.6	3.1	1.3	.9	5.2
1923	4,399	11	19	984	1,014	.8	1.4	74.6	76.8	5.0	1.1	.9	7.0
1924	2,457	4	14	583	601	.5	1.9	79.1	81.5	3.3	3.4	.9	7.7
1925	4,869	4	8	1,093	1,105	.3	.6	74.8	75.7	1.6	.7	.9	3.3
1926	5,643	3	16	1,086	1,105	.2	1.0	64.2	65.3	1.1	.7	.9	2.6
1927	3,489	2	10	620	632	.2	1.0	59.2	60.3	1.2	.5	.8	2.5
1928	3,124	2	3	758	763	.2	.3	80.9	81.4	1.3	.1	1.0	2.4
1929	8,683	7	56	1,805	1,868	.3	2.1	69.3	71.7	1.6	1.3	.9	3.8
1930	5,724	1	29	896	926	.1	1.7	52.0	54.6	.4	1.8	.7	2.9
Missouri:													
1922	4,676	6	12	1,632	1,650	.4	.9	116.4	117.6	2.6	1.0	1.4	5.0
1923	4,255	0	4	903	907	.3	.3	70.7	71.1	.3	.3	.8	1.2
1924	1,284	1	8	266	275	.3	2.1	69.1	71.4	1.6	1.8	.8	4.1
1925	3,662	1	2	294	297	.1	.2	26.8	27.0	.6	.2	.3	1.1
1926	3,215	3	6	4.3	452	.3	.6	46.1	47.1	1.9	.7	.5	3.1
1927	2,913	1	3	268	272	.1	.3	30.7	31.1	.7	.2	.6	1.4
1928	2,934	1	2	141	144	.1	.2	16.0	16.4	.7	.1	.4	1.1
1929	4,367	5	27	915	946	.4	2.0	69.8	72.0	2.3	2.0	1.0	5.2
1930	3,339	4	15	561	580	.4	1.5	56.0	57.9	2.4	1.7	1.0	5.1
New Jersey:													
1922	6,597	1	37	625	663	.1	1.9	31.6	33.5	.3	1.2	.6	2.1
1923	7,341	0	47	780	827	.2	2.1	35.4	37.6	.2	.6	.7	2.7
1924	7,175	0	47	772	819	.2	2.2	35.9	38.1	.2	.7	.7	3.4
1925	6,923	4	31	769	804	.2	1.5	37.0	37.7	1.2	1.5	.6	3.2
1926	7,896	4	30	568	602	.2	1.3	24.0	25.4	1.0	.9	.4	2.3
1927	7,420	6	42	331	379	.3	1.9	14.9	17.0	1.6	1.7	.3	3.6
1928	7,538	1	48	387	436	(1)	2.1	17.1	19.3	.3	1.3	.3	1.9
1929	9,403	1	74	1,002	1,077	(1)	2.6	35.5	38.1	.2	2.2	.6	3.0
1930	9,177	3	32	428	463	.1	1.2	15.5	16.8	.7	2.3	.3	3.3
New York:													
1922	9,785	11	47	1,625	1,683	.4	1.9	64.1	66.4	2.7	1.8	1.0	5.4
1923	11,377	9	65	2,141	2,215	.3	1.9	62.7	64.9	1.6	1.8	.7	4.2
1924	6,903	5	51	1,107	1,163	.2	2.5	53.5	56.2	1.5	2.0	.9	4.4
1925	10,372	7	66	2,725	2,799	.2	2.1	87.6	89.9	1.4	2.4	.9	4.6
1926	9,442	7	43	1,821	1,871	.2	1.5	64.3	66.1	1.5	.9	1.0	3.3
1927	8,785	5	45	884	934	.2	1.7	33.5	35.4	1.1	1.3	.7	3.2
1928	16,531	14	57	1,250	1,321	.3	1.2	25.2	26.6	1.7	1.1	.6	3.4
1929	17,963	6	84	1,553	1,643	.1	1.6	28.8	30.5	.6	1.4	.5	2.5
1930	16,456	25	95	1,288	1,408	.5	1.9	26.0	28.4	3.1	1.7	.8	5.6
Ohio:													
1922	51,424	42	125	5,268	5,435	.3	.8	34.2	35.2	1.6	.7	.5	2.8
1923	77,979	39	201	5,763	6,003	.2	.9	24.6	25.7	1.0	.9	.4	2.3
1924	75,282	57	181	5,223	5,461	.3	.8	23.1	24.2	1.5	1.0	.4	2.9
1925	86,820	33	150	5,059	5,242	.1	.6	19.4	20.1	.8	.5	.3	1.5
1926	92,678	45	172	5,630	5,850	.2	.6	20.3	21.0	1.0	.4	.2	1.7
1927	91,377	37	190	5,313	5,540	.1	.7	19.4	20.2	.8	.6	.3	1.7
1928	65,955	53	181	5,066	5,300	.3	.9	25.6	26.7	1.6	.8	.5	2.9
1929	96,360	40	230	4,972	5,242	.1	.8	17.2	18.1	.8	.7	.3	1.8
1930	66,489	26	144	3,200	3,370	.1	.7	16.0	16.9	.8	.6	.4	1.7

<sup>1</sup> Less than one-tenth of 1 per cent.

TABLE 5.—ACCIDENT FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY, 1922 TO 1930, BY STATE AND YEAR—Continued

State and year	Full-year work-ers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Perma-nent disa-bility	Tempo-rary disa-bility	Total	Death	Perma-nent disa-bility	Tempo-rary disa-bility	Total	Death	Perma-nent disa-bility	Tempo-rary disa-bility	Total
Pennsylvania:													
1922	102,186	60	103	8,364	8,527	0.2	0.3	27.3	27.8	1.2	0.3	0.5	2.0
1923	140,259	112	244	12,188	12,544	.3	.6	29.0	29.8	1.6	.6	1.0	3.2
1924	154,800	54	244	8,382	8,680	.1	.5	18.1	18.7	.7	.3	.3	1.3
1925	149,089	75	218	9,527	9,820	.2	.5	21.3	22.0	1.0	.5	.3	1.7
1926	196,124	77	204	7,763	8,044	.1	.3	13.2	13.6	.8	.1	.2	1.1
1927	146,595	103	239	6,727	7,069	.2	.5	15.3	16.1	1.4	.5	.3	2.3
1928	147,455	93	212	5,066	5,300	.2	.5	14.5	15.2	1.3	.5	.3	2.1
1929	177,191	67	242	8,415	8,724	.1	.5	15.8	16.4	.8	.4	.3	1.5
1930	142,954	98	259	6,684	7,041	.2	.6	15.6	16.4	1.4	.6	.3	2.3
Tennessee:													
1922	1,543	0	4	220	228	—	.9	47.5	48.4	—	1.5	.7	2.2
1923	2,258	9	19	437	465	.3	2.8	64.5	68.6	8.0	2.3	1.0	11.2
1924	1,503	3	6	77	86	.7	1.3	17.1	19.1	4.0	1.6	.3	5.8
1925	1,256	1	2	196	199	.3	.5	52.0	52.8	1.6	1.7	.7	4.0
1926	1,139	1	0	32	33	.3	—	9.4	9.7	1.8	—	.1	1.9
1927	1,354	1	1	114	116	.3	.3	28.1	28.6	1.5	.4	.5	2.4
1928	1,063	0	4	65	69	—	1.3	20.4	21.6	—	.9	.4	1.3
1929	1,819	1	7	193	201	.2	1.3	35.4	36.9	1.1	1.5	.9	3.5
1930	1,009	0	2	64	66	—	.7	21.1	21.8	—	.2	.3	.5
Washington:													
1922	534	0	6	80	86	—	3.8	50.0	53.7	—	6.0	.6	6.6
1923	2,258	0	1	77	78	—	.4	32.1	32.5	—	.1	.5	.6
1924	1,503	0	2	66	68	—	1.1	36.5	37.6	—	1.5	1.5	.9
1925	1,256	2	3	181	186	.6	.8	49.9	51.3	3.3	1.3	1.2	5.7
1926	1,348	1	6	148	155	.3	.2	37.0	38.3	1.5	1.0	.5	2.9
1927	763	0	2	69	71	—	.9	30.2	31.0	—	1.6	.6	2.2
1928	942	0	2	84	86	—	.7	29.7	30.4	—	.5	.6	1.0
1929	678	0	2	122	124	—	1.0	60.0	61.0	—	.3	1.0	1.3
1930	796	0	3	131	134	—	1.3	54.9	56.1	—	.5	.8	1.3
West Virginia:													
1922	2,702	2	6	592	600	.2	.7	73.0	74.0	1.5	.8	.9	3.2
1923	9,336	8	13	749	770	.3	.5	26.7	27.5	1.7	.5	.3	2.6
1924	4,613	7	18	806	831	.5	1.3	58.2	60.1	3.0	1.5	1.7	6.3
1925	7,964	13	14	537	564	.5	.6	22.5	23.6	3.3	.7	.3	4.2
1926	14,124	12	30	1,306	1,348	.3	.7	30.9	31.9	1.7	.4	.4	2.5
1927	12,414	15	21	1,279	1,315	.4	.6	34.3	35.3	2.4	.6	.6	3.5
1928	13,938	8	39	1,874	1,921	.2	.9	44.8	45.9	1.2	.8	.6	2.6
1929	21,760	14	32	985	1,031	.2	.5	15.1	15.8	1.3	.4	.3	2.0
1930	12,311	10	25	583	618	.3	.7	15.8	16.7	1.6	1.0	.4	2.7
Wisconsin:													
1922	5,441	0	20	790	810	—	1.2	48.4	49.6	—	1.4	.7	2.1
1923	4,264	3	17	708	728	.2	1.3	55.3	56.9	1.4	1.2	.8	3.4
1924	8,321	5	47	1,275	1,327	.2	1.9	51.1	53.2	1.2	1.6	.7	3.5
1925	6,089	2	34	1,121	1,157	.1	2.2	72.0	74.3	.8	2.1	.8	3.7
1926	10,481	6	66	1,214	1,286	.2	2.1	38.7	41.0	1.1	1.8	.6	3.5
1927	3,992	4	26	641	671	.3	2.2	53.5	56.0	2.0	1.7	.6	4.3
1928	2,604	0	15	595	610	—	1.9	76.2	78.1	—	1.3	.8	2.2
1929	7,353	3	48	1,459	1,510	.1	2.2	66.1	68.4	.8	1.8	1.0	3.6
1930	5,412	3	24	667	694	.2	1.5	41.1	42.8	1.1	1.2	.6	3.0

## Experience of a Group of Establishments with Extensive Accident-Prevention Work

A DECIDED contrast to the experience of the industry as a whole is presented by the data covering the special group of iron and steel establishments for which separate frequency rates have been published yearly, as these show an increase from 6.2 in 1929 to 7.7 in 1930.

The frequency rates for this group had declined constantly from 1913 to 1927, and it is therefore somewhat surprising that gradual increases have occurred since then. It should, however, be considered

that this special group embodies the best practices and the most pronounced success in the efforts to reduce accident rates and that the frequency rate for 1930 for the group is only 7.7 accidents per 1,000,000 hours' exposure, against 18.6 accidents per 1,000,000 hours' exposure for the industry as a whole.

Table 6 presents the experience of the six companies included in the group, by the principal product of each company and for the entire group, by years from 1913 to 1930.

TABLE 6.—ACCIDENT FREQUENCY RATES (PER 1,000,000 HOURS' EXPOSURE) FOR A SELECTED GROUP OF PLANTS, 1913 TO 1930, BY PRODUCT AND YEAR

Year	Fabri- cated products	Sheets	Wire and its products	Tubes	Miscellaneous steel products		Total
					Group A	Group B	
1913.....	100.3	61.6	59.3	27.2	70.9	41.3	60.3
1914.....	59.0	47.2	46.2	12.5	50.7	27.6	43.5
1915.....	53.5	37.3	52.4	10.8	51.9	23.0	41.5
1916.....	52.1	34.0	48.2	12.4	67.6	28.2	44.4
1917.....	51.3	33.9	32.5	10.2	51.3	20.5	34.5
1918.....	38.2	25.9	18.8	9.1	42.0	31.4	28.8
1919.....	32.8	25.8	12.5	9.1	39.7	23.0	26.3
1920.....	35.3	22.7	12.0	8.9	35.3	18.6	22.9
1921.....	28.4	17.5	7.5	6.1	15.8	12.1	13.2
1922.....	33.8	16.9	7.9	7.1	14.5	10.8	13.0
1923.....	32.6	17.2	7.9	7.0	13.9	9.8	12.8
1924.....	33.4	10.3	6.2	5.1	11.8	7.9	10.2
1925.....	27.4	11.4	4.2	4.0	9.8	3.7	8.2
1926.....	24.3	9.4	3.9	3.6	6.6	3.8	6.8
1927.....	18.0	8.4	3.5	2.5	5.1	2.7	5.3
1928.....	19.7	8.7	4.0	2.3	5.3	2.4	5.6
1929.....	21.4	10.7	3.1	3.0	5.3	3.2	6.2
1930.....	21.3	6.0	5.0	3.8	9.0	7.3	7.7

In order to get a more intimate view of the changes which have occurred in these establishments since the safety movement was inaugurated, it is necessary to consider not only the frequency rates for the various companies but also the changes in the rates for causes of accidents. As shown in Table 7, a notable decline has occurred in the rate of accidents for each of the general-cause groups from 1913 to 1930.

TABLE 7.—FREQUENCY RATES (PER 1,000,000 HOURS' EXPOSURE) IN A SELECTED GROUP OF PLANTS, 1913 AND 1930, BY CAUSE OF ACCIDENT

Cause of accident	Frequency rates (per 1,000,000 hours' ex- posure)		Per cent of decrease
	1913	1930	
Machinery.....	7.3	1.5	79.5
Vehicles.....	2.3	.3	86.0
Hot substances.....	5.4	.4	92.4
Falls.....	4.5	1.0	77.8
Falling material.....	2.1	( <sup>1</sup> )	97.6
Handling objects.....	26.7	3.6	86.5
Miscellaneous.....	12.9	.8	93.8
Total.....	60.3	7.7	87.2

<sup>1</sup> Less than one-tenth of 1 per cent.



Handling objects and tools was responsible for nearly one-half of the accidents in both 1913 and 1930. During the interval the frequency rate for this cause group dropped from 26.7 to 3.6 accidents for 1,000,000 hours' exposure, a decrease of 86.5 per cent. The decreases for the other cause groups ranged from 77.8 per cent to 97.6 per cent, while the general average reduction in frequency rates was 87.2 per cent.

A more extended analysis of accident causes is presented in Table 8, which gives the frequency rates in detail, by cause, and by year from 1916 to 1930. An analysis of this kind indicates the relative importance of the causes and also helps to determine whether the accident-reduction effort has been successful in all phases of the various processes.

TABLE 8.—ACCIDENT FREQUENCY RATES (PER 1,000,000 HOURS' EXPOSURE) FOR A SELECTED GROUP OF PLANTS, 1916 TO 1930, BY YEAR AND CAUSE

Accident cause	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Machinery	5.4	4.5	4.0	3.3	3.4	1.8	2.2	2.3	2.0	1.6	1.5	1.3	1.4	1.4	1.5
Working machines	2.6	2.0	1.8	1.4	1.5	.8	1.1	1.0	.8	.7	.7	.5	.6	.5	.5
Caught in	1.7	1.2	1.1	.9	1.0	.6	.8	.7	.6	.5	.5	.4	.4	.4	.4
Breakage	.1	.1	.1	.1	.1	.1	.1	(1)	(1)	(1)	(1)	(1)	(1)	.1	(1)
Moving material in	.8	.7	.6	.4	.4	.1	.3	.2	.2	.2	.2	.1	.2	(1)	.1
Cranes, etc.	2.8	2.5	2.2	1.9	1.9	1.0	1.2	1.3	1.2	.9	.9	.8	.8	.9	1.0
Overhead	2.5	2.2	1.9	1.6	1.5	.8	1.0	1.1	.9	.7	.7	.6	.6	.6	.7
Locomotive	.2	.2	.2	.2	.2	.2	.1	.1	.1	.1	.1	.1	.1	.1	.2
Other hoisting apparatus	.1	.1	.1	.1	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Vehicles	1.7	1.7	1.3	1.2	.1	.5	.4	.6	.5	.3	.3	.2	.2	.2	.3
Hot substances	4.5	3.6	3.0	2.8	2.5	1.2	1.1	1.2	.9	.6	.5	.4	.4	.4	.4
Electricity	.4	.3	.3	.2	.3	.1	.1	(1)	.1	(1)	.1	(1)	(1)	(1)	(1)
Hot metal	3.0	2.5	2.1	2.0	1.8	.8	.7	.9	.6	.4	.4	.3	.2	.3	.3
Hot water, etc.	1.1	.8	.6	.6	.4	.2	.3	.2	.2	.1	.1	.1	.1	.1	.1
Falls of persons	3.7	3.2	2.8	2.8	2.5	1.7	1.5	1.4	1.4	1.1	1.0	.7	.7	.7	1.0
From ladders	.1	.1	.2	.1	.1	.1	.1	.1	.1	(1)	.1	(1)	(1)	(1)	(1)
From scaffolds	.2	.3	.2	.2	.2	.1	.1	.1	.1	.1	.1	.1	(1)	(1)	(1)
Into openings	.3	.2	.1	.1	.1	.1	(1)	.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Due to insecure footing	3.1	2.6	2.3	2.3	2.1	1.4	1.3	1.1	1.1	.9	.8	.6	.6	.7	.9
Falling material not otherwise specified	.6	.4	.3	.4		.1	.1	.1	.1	.1	.1	(1)	.1	(1)	(1)
Handling	21.5	15.7	12.8	11.7	10.4	6.5	5.8	5.5	3.9	3.4	2.9	2.0	2.3	2.7	3.6
Dropped in handling	8.4	6.1	5.5	5.0	4.4	2.6	2.6	2.3	1.9	1.5	1.2	.9	.9	1.2	1.9
Caught between	3.1	2.1	1.7	1.7	1.3	.7	.7	.7	.5	.4	.3	.2	.3	.3	.7
Trucks	1.4	1.2	.9	.7	.6	.5	.4	.4	.2	.2	.2	.1	.1	.2	.2
Lifting	2.5	2.0	1.4	1.4	1.1	.8	.8	.5	.3	.3	.3	.2	.2	.2	.2
Flying from tools	.1	.1	.1	.1	.1	.1	.1	.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Sharp points and edges	3.1	2.2	1.5	1.3	1.5	1.1	.6	.6	.3	.4	.4	.3	.4	.4	.2
Tools	2.9	2.0	1.7	1.4	1.4	.8	.7	.8	.6	.5	.5	.3	.3	.4	.5
Miscellaneous	7.0	5.4	4.6	4.1	3.1	1.3	1.9	1.8	1.6	1.1	.4	.6	.7	.7	.8
Asphyxiating gas	.1	.1	.1	.2	.1	.1	(1)	.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Flying, not striking eye	.5	.4	.5	.3	.3	.2	.1	.3	.2	.1	.1	.1	.1	.1	(1)
Flying, striking eye	1.9	1.6	1.6	1.3	1.1	.5	.4	.2	.3	.2	.1	.1	.1	.2	.2
Heat	.4	.1	.2	.1	.1	.1	.1	(1)	.1	(1)	(1)	(1)	(1)	(1)	(1)
Other	4.1	3.2	2.2	2.2	1.5	.6	1.3	1.1	1.0	.8	.2	.3	.4	.4	.5
Grand total	44.4	34.5	28.8	26.3	22.0	13.2	13.0	12.8	10.2	8.2	6.8	5.3	5.6	6.2	7.7

<sup>1</sup> Less than one-tenth of 1 per cent.

## EMPLOYMENT CONDITIONS AND UNEMPLOYMENT RELIEF

### The President's Organization on Unemployment Relief

ON AUGUST 19, 1931, President Hoover announced the appointment of Walter S. Gifford to set up such an organization as he deemed necessary to direct unemployment activities throughout the country during the coming winter. It was further announced that the headquarters of the organization should be in Washington. Shortly after Mr. Gifford's appointment a committee, composed of 61 persons, was asked by the President to serve in an advisory capacity to assist Mr. Gifford. The committee thus brought into existence became known as the President's Organization on Unemployment Relief.

This organization was charged with the task of coordinating all activities relating to unemployment relief. Fred C. Croxton, acting chairman of the President's Emergency Committee for Employment, became assistant director of the President's Organization on Unemployment Relief, and it was further provided that the work of the President's Emergency Committee should be merged in the work of the newly created organization.

### Organization of Activities

FIVE subcommittees have been designated by Mr. Gifford to deal with the various aspects of the unemployment problem, as follows: (1) Committee on mobilization of relief resources, under the chairmanship of Owen D. Young, concerned with raising funds; (2) committee on employment plans and suggestions, headed by Harry A. Wheeler and concerned with securing the maximum employment; (3) committee on administration of relief, under Fred C. Croxton, concerned with the problem of spending relief funds; (4) committee on cooperation with national groups and associations, headed by Eliot Wadsworth and concerned with enlisting support of the entire unemployment relief plan; and (5) committee on program of Federal public works, headed by James R. Garfield and concerned with the general program of public works.

In order to have a definite link with the work being undertaken in the 48 States Mr. Gifford is appointing one individual in each State to form a liaison between the central organization and the various relief agencies in the respective States.

### Objects and Program

Soon after the formation of the committee Mr. Gifford announced that "this is an organization for action, to assist in building up adequate relief for distress over the winter by cooperation with all agencies."

On September 1, 1931, Mr. Gifford issued the following statement with regard to the projected work of the committee:

The President's Organization on Unemployment Relief believes that its co-operative activities naturally fall into three divisions:

1. The activities, public and private, to provide relief funds.
2. The administration of relief funds.
3. Activities looking towards distributing and increasing employment.

On September 18 Mr. Gifford described the aim of the committee as follows:

Our aim is to be of widest service to communities in their task of meeting the burden placed upon them by unemployment—whatever that burden may be. Last winter public and private agencies in existence in communities throughout the country met the situation, on the whole, so that there was a minimum of suffering. They no doubt will do so again this winter even though the burden will be greater in many localities than it was a year ago. In some localities it may be less and there will not be the drought problem that there was a year ago.

This organization is not conducting a drive for a national fund. Existing agencies in the United States in the various communities demonstrated effectively last winter their ability to cope with the situation then before them and are planning to do so again. This organization will in no way disturb those activities, but, on the contrary, is designed to be helpful, not only to organizations and agencies throughout the country which are already in existence but also those now being formed to deal with unemployment this winter.

I am sure we shall find many ways of practical and effective help. To one who would like to see a clearly defined organization set up, it would perhaps appear that we should have organized the entire country under one direction and had clearly defined duties for each and all within that organization. To organize on this basis in this particular case would be disastrous, as it would interfere with agencies built up over a long period of time, which are understood by the communities and which are conversant with the needs of their respective communities. In some places there are community chests; in others there is a family-welfare society or even several family-welfare societies. In still others there are emergency committees, formed to meet the emergency created by unemployment. In many towns and cities there are well-organized public welfare departments. Naturally, therefore, our organization must be unusually flexible and must be so adaptable as to meet the individual circumstances of each community engaged in working out their problems arising out of unemployment.

I emphasize this in order that you may understand clearly that in carrying out our aims and objectives we must do so in support of and not in place of existing agencies.

From the inception of the plan for a governmental organization on unemployment relief it was made clear that the Federal Government would not make a campaign for a national relief fund, and that relief was to be considered as essentially the responsibility of the States and local communities. Mr. Owen D. Young recently stated that communities throughout the country are already perfecting their plans for funds to meet local needs and that the sums of money raised will be administered and distributed where they are raised. He further states that the committee on mobilization of relief resources will not engage in money-raising campaigns, but that such campaigns will in most instances occur between October 19 and November 25, at which time the committee will lend its support to the efforts of local groups by furnishing a national background, securing speakers, etc.



## Emergency Unemployment Plan of the American Federation of Labor

**I**N THE report of the executive council of the American Federation of Labor, presented to the federation's fifty-first annual convention on October 5, at Vancouver, British Columbia, an emergency unemployment-relief program for the winter of 1931-32 was presented. This plan was adopted and is here reproduced in full:

### Emergency Unemployment Program for Winter 1931-32

It now seems probable that there may be at least 7,000,000 persons unemployed next winter. To meet this crisis we suggest the following program:

(1) Maintain wages; (2) shorten work hours; (3) assure employment to minimum work forces; (4) each employer to take on additional workers; (5) create work through public building; (6) strengthen employment agencies; (7) keep young persons in school to prevent their taking jobs from older men and women; (8) preference for workers with dependents; (9) financial relief from public and private funds.

*1. Maintain wages.*—This is a preventative measure. Workers' buying power must be maintained so that demand for goods will be kept up and employment may not fall to any lower levels. It is essential also to maintain American living standards, for wage levels recover slowly. The wage liquidation of 1921 retarded workers' progress by more than eight years. For by 1929, wage earners had not entirely regained the 1921 losses.

Falling wages have an effect on business comparable to falling prices. Falling prices start a competition in price reductions, each firm trying to secure business by reducing its price a little below others. Thus the price is driven down, in some cases even below production costs. At such times purchasers hold back their orders as long as possible to take advantage of the lowest price. Wage reductions would start a toboggan slide of wages similar to that of prices in the last year and a half. Though wages were reduced below the minimum living standard, customers would still put off their orders to wait for further reductions. Both commodity and labor markets would be thoroughly disorganized. Such a policy retards business recovery.

*2. Shorten work hours.*—Work hours should be shortened to divide the available work among all workers. We estimate that if unemployment and part time increase as much this winter as they do in normal years, there will be approximately 36 hours' work a week for all wage earners in the United States. The universal establishment of the 5-day week would keep the nation's wage earners at work, making all producers and consumers. There are some industries where the step from present hours of work to the 5-day week would not be difficult, for hours are already 44 or 48 a week. But other industries and many individual plants are still working a 9 or 10 hour day and 50 or 55 hour week, and a few even have an 11-hour day and a 60-hour week. It is particularly important that hours be shortened in these establishments so as to level the work week and make it uniform for all. This measure is essential to meet the present emergency this winter. It is even more essential to protect

our economic future. For unless modern industrial improvements are balanced with a reduction of work hours we shall have a constant increase of technological unemployment. Giving the workers leisure instead of unemployment means moral and spiritual progress for the people of the United States; economically it means that we keep them as creators of wealth and consumers of industry's products, instead of dependents on charity and a drain on our national resources. Shortening work hours will help to make possible sections 3 and 4.

3. *Assure employment to minimum work forces.*—All employers to assure employment to their minimum work force at least from November to April. It is entirely possible for almost any employer to judge from past experience and from a survey of present conditions in his own business the number of employees he will need as a minimum force for these six months. If every employer in the United States were to do this, some 20,000,000 wage earners could plan their purchases ahead with confidence for six months. In six months many installment purchases could be entirely paid for, so that this renewed confidence on the part of wage earners would result not only in a release of the cash workers are now hoarding against unemployment but also in an increase of installment purchases. We estimate that the increased spending resulting from employment assurance, if all employers cooperated, would amount to well over one billion dollars. This is enough to make a decided impression on the trend of industrial production.

Employment assurance is a creative substitute for unemployment insurance. Employment assurance keeps men at work creating wealth and establishes the confidence essential for the consumption of that wealth; it strengthens the forces leading to business recovery. Unemployment insurance subsidizes idleness and turns the nation's resources to unproductive ends; in the long run it retards real progress. It would be unwise to meet a temporary emergency by a permanent measure which diverts wealth to unconstructive ends.

4. *Each employer to take on additional workers.*—There are about 3,000,000 employers in the United States, excluding farmers. It seems possible that there will be 7,000,000 unemployed by January of the coming winter. If all employers were to take on an average of two workers each, all but 1,000,000 of the unemployed would be given work. These 1,000,000 will be taken care of by other provisions.

Every employer should be able to give work to additional employees at least part time. There are of course many small shops, such as delicatessens, small retail shops, small tailoring establishments, etc., where the proprietor might find it difficult to take on more than one worker. On the other hand, there are many large employers, employing hundreds, or even thousands of wage earners, who could take on 25 or 100 employees, or even more. Industries and employers should therefore be given quotas of jobs to be furnished, according to their ability to provide work. The allocation of these quotas should be the task of a central board, representing the Government and all industrial groups.

5. *Create work through public undertakings.*—During the years from 1923 to 1928 the number of persons employed in public construction increased from approximately 516,000 to approximately 887,000

(estimate by National Bureau of Economic Research). The largest increase in any one year was 155,000, in 1927. It is estimated that work was created in 1930 for 75,000 men in public building in addition to those already at work, and for 150,000 men in the industries supplying materials for this work. If every effort be made to create work through public construction this coming winter, it should be possible to give work to over 100,000 in addition to those now employed.

Here is an opportunity to create public improvements of lasting benefit to the people of the United States. While millions of workers are not creating wealth for commercial use, they may add to the public wealth of the citizens of the United States, making life richer for all. Now is the time to undertake such projects as the following, and every effort should be made to press such work to actual completion: Locally, building of schools, creation of parks and playgrounds to provide the wholesome recreation so much needed in our large cities, construction of libraries, improvement and extension of streets, sewage, and water-supply systems; national and State projects, road building, extension of inland waterways, extension and improvement of national parks, reforestation projects, flood control, and irrigation. Public-work programs also give an opportunity to beautify our cities by cleaning, painting, planting flowers in parks, and in general to make the places where we live and carry on our business a more spiritually satisfying environment.

6. *Strengthen employment agencies.*—Efficient employment bureaus will be essential to make any of this work-providing program possible. Attention should be concentrated on building up the present system of employment bureaus and supplementing it where necessary. Local communities must undertake the main effort, but the Federal and State Governments can support and encourage, and undertake the essential function of coordination, putting local bureaus in touch with needs in other parts of the State or country.

7. *Keep young persons in school to avoid their competing for jobs.*—Every effort should be made to keep boys and girls in their teens in school. Not only will their efforts to secure work take jobs from older men and women but they will find it exceedingly difficult to get work. They will risk wasting their time in demoralizing idleness, where it might be spent in increasing their ability for future work. The 1930 census of unemployment showed that 11 per cent of all these without jobs were boys and girls between 15 and 19 years of age—267,000 boys and girls in all. The proportion out of work between these ages was especially high, compared to other age groups.

Schools should prepare to enroll as large a number of children in their teens as possible and adapt their curriculum to give them work which will be helpful in preparation for their future occupation.

8. *Preference for workers with dependents.*—In this emergency we believe preference for employment should be given workers whose wages must maintain dependents. Fathers of families and workers who must support dependents should have prior consideration when additional employees are needed or when personnel is being reduced.

Accompanying our economic and social developments has come increasing gainful employment for married women. Married women have continued in their trades and callings even when there was no economic necessity. Heads of families may be jobless while two



bread-winners in other families have positions. Unless these married women hold key positions or have an investment in a career for themselves, we believe that in emergencies they should give way to heads of families. Married women whose husbands have permanent positions which carry reasonable incomes should be discriminated against in the hiring of employees, at least until we are well out of this business depression.

9. *Financial relief from public and private funds.*—Because it is never possible to put any program into universal effect, we can not expect to provide work for all the unemployed. Without question there will be millions this coming winter who will have to depend on charity to exist. Ample funds should be provided in every community, both from private and municipal sources. These funds should be used to furnish work rather than relief without work wherever possible.

The collection and administration of funds for relief purposes is of the utmost importance to labor, and labor, with other groups, should be represented on boards responsible for this work.

The above program can not be put into effect unless there is nationwide cooperation in carrying it out. Unless American citizens meet the emergency of the coming winter in the same wholehearted self-sacrificing spirit that inspired war work in the national emergency 14 years ago, we can not hope to see our country through this winter without untold suffering by millions.

Your executive council recommends that a copy of this program, if approved, be sent to the following persons, urging them to exert every effort to have all its provisions put into effect: The President of the United States and each member of his Cabinet; the governor of each State; the mayors of cities; the director of the President's Organization on Unemployment Relief, the State director of this organization in each State and all heads of committees under it; each State Federation of Labor and each Central Labor Union.

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### **Stabilization Program of Committee of Chamber of Commerce of the United States**

**I**N THE report of the committee on continuity of business and employment of the Chamber of Commerce of the United States, under date of October 2-3, 1931, the present depression and its causes are discussed, long-time and immediate measures are proposed for business and industrial stabilization, a model unemployment benefit plan for adoption by individual concerns is outlined, and a number of unemployment benefit plans now in operation in the United States are described. The long-time and immediate measures looking toward stabilization are here discussed briefly.

#### **Long-time Measures**

*Antitrust laws.*—The committee, stating that only through proper coordination of production and consumption can a sane, orderly, and progressive economic life be developed, and that under our form of industry a large part of the national income is distributed through industrial concerns, believes that many producers would prefer to

gauge their output by consuming capacity and divide production equitably among the producing units. A revision of the antitrust laws is therefore favored. The details of legislation required are not suggested, but it is believed that concerns should be enabled to enter agreements for dividing work and that the widest publicity should be given to the agreements, always providing for supervision by some governmental authority.

*Economic council.*—Establishment of a national economic council is also favored. As described, such a council should be an advisory body, as its name implies, with functions like those of the War Industries Board. Were a body of this kind in existence it would deal with problems of the type quoted below:

1. *The tendency of productive capacity to outrun ability to buy.*—How can our enormous ability to produce wealth be controlled and directed so as to be of the most use instead of being as it now is a menace to prosperity?

2. *The levels of wages.*—How should they be determined and maintained so as to contribute to prosperity?

3. *Foreign trade, both export and import.*—The extent to which it should be encouraged and the methods by which international debts, resulting from this trade or otherwise, can best be dealt with.

4. In what way and by what agencies can authoritative information and statistics be gathered and published so as to be the most useful guides to industry?

It is further advocated that the council have a membership of men of the highest ability and character and representative of the country as a whole. Financing should be adequate so that an ample staff of economists and statisticians and committees from industries and professions might be maintained.

*Individual planning.*—The importance of careful individual planning, if business operations are to be successful, is stressed. This is equally important from the humanitarian standpoint. Production and employment must be regularized through a carefully planned schedule of future production and sales. While it is stated that not all concerns are producing in fields that permit regularization, it is believed that much may be accomplished in this direction and trade associations might well look into the matter.

*Other suggestions.*—Among the other suggestions made for long-time stabilization is the proposal for individual concerns to create reserves in the form of unemployment benefit funds to be paid out to workers in times of unemployment. This form of protection, it is stated, should be supplemented by a system of employment exchanges whereby jobs and men might be brought together. The trend toward shortening hours of labor is noted and is recognized as a movement that should properly continue.

Unemployment insurance is not regarded by the committee as a practical field for governmental intervention and is accordingly not advocated.

#### Immediate Measures

*Jobs.*—To meet the present unemployment problem immediate action is proposed. This must be accomplished by finding jobs for idle men, a task that must be done locally. Central registration of workers and jobs is suggested. Householders and businesses should take stock of work opportunities and public work should be initiated. It is thought that if all agencies do their part the problem will be met.

*Relief funds.*—The need for the raising of relief funds for the coming winter is also urged regardless of the success that is attained in placing men in jobs. This need arises, it is stated, because there are always maladjustments in such a situation as the present; i. e., men needing jobs who are not equipped to perform the work available, etc. The President's national relief committee is looked to as a coordinating agency in relief work.

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### Plan for Stabilization of Industry by President of the General Electric Co.

**A** PLAN was proposed by Gerard Swope, president of the General Electric Co., at the annual dinner of the National Electrical Manufacturers' Association in New York on September 16, which aims at the stabilization of industry through the coordination of production and consumption. The address of Mr. Swope in which the proposed plan is outlined follows:

In the situation that confronts us at the present, the most disturbing aspect is that men who are able to work, who are competent workers, who above all things desire work, can not find work to do. That this condition has ever been present in such periods detracts nothing from its wrongness. That industry must evolve and make effective those measures which will first ameliorate and ultimately eliminate it, must be the reaction of everyone who gives thought to what is taking place. I say that industry must do this thing, because it will surely be done.

Benefits earned by a worker in one employment are wholly or in large measure lost by forced changes; or the right of choice of employment, which should be inalienable, is hampered. From the operation of individual life insurance and pension systems, however well conceived, has arisen the complaint of the "40-year dead line," which, it is claimed, has seriously affected the ability of men exceeding that age to find new employment. Wide application is essential if benefits gained in one location are to follow the worker as necessity may indicate change of location, and this is a vital factor of any plan which will meet the need. If there were provided in the United States a system of benefits accruing through the life of the worker and following him where he might go, from shop to shop within a particular industry, or from branch to branch within industry as a whole, such provision would enlist, not merely interest on the part of the worker, but enthusiastic support.

Industry exists basically for serving the needs of the people, and therefore production and consumption must be coordinated. Consumption is by the mass of the population, not the few, and the great mass of the population is made up of wage earners and their dependents. That they may be able to buy and satisfy their needs, they must have not only adequate incomes, but must be sufficiently assured of the future to feel that they are safe in spending their money. The psychology of fear must be removed, and this can not be done unless they have reasonable expectation of protection for their families in case of the breadwinner's death, protection for their old age, and protection against unemployment. By "protection" I do not

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mean a protection that is given to them, but I mean protection that they themselves help to provide.

Shall we wait for society to act through its legislatures, or shall industry recognize its obligation to its employees and to the public and undertake the task? Coordination of production is impossible under our present laws, and it is vain to think of their amendment or repeal unless the public is assured of the constructive nature of the steps industry will take, and that the interests of the public will be adequately safeguarded.

The general principles underlying what I am going to say are as follows:

1. Every effort should be made to stabilize industry and thereby stabilize employment to give to the worker regularity and continuity of employment, and when this is impracticable, unemployment insurance should be provided.

2. Organized industry should take the lead, recognizing its responsibility to its employees, to the public, and to its stockholders—rather than that democratic society should act through its government. If the various States act, industry will be confronted with different solutions, lacking uniformity and imposing varying burdens, making competition on a national scale difficult. If either the individual States or the Federal Government act, the power of taxation has no economic restraints.

3. There should be standardized forms of reports so that stockholders may be properly informed. As a result of the steady increase in number and size of corporations and number of shareholders, there has been much discussion of the uniformity, frequency, and regularity of reports of corporate activities, and considerable criticism of the form of these reports; some too conservative, some not sufficiently complete; while others are considered to be fair and complete, but even so there is a lack of uniformity among the different companies.

4. Production and consumption should be coordinated on a broader and more intelligent basis thus tending to regularize employment and thereby removing fear from the minds of the workers as to continuity of employment; as to their surviving dependents in case of death; and as to old age. This should be done preferably by the joint participation and joint administration of management and employees. These things can not be done by an individual unit—organized industry must do them.

5. If organized industry is to undertake this work, every effort should be made to preserve the benefits of individual originality, initiative, and enterprise, and to see that the public is assured that its interests will be protected, and this can be done most effectively by working through the agency of the Federal Government.

There is nothing new or original in what I am proposing. I am merely bringing together well-considered propositions that have found support, including some that have been put into actual practice.

The following plan is offered as a means to correlate into a comprehensive whole the at present undirected efforts of forward-looking business enterprises toward stabilization; for the further development of industry and commerce; for the protection of employees and stockholders; for the best service to the public and in general the best

interests of society. Legislation will be required to make such a plan possible, including the probable modification of some existing laws.

An outline of the more important features follows:

1. All industrial and commercial companies (including subsidiaries) with 50 or more employees, and doing an interstate business, may form a trade association which shall be under the supervision of a Federal body referred to later.

2. These trade associations may outline trade practices, business ethics, methods of standard accounting and cost practice, standard forms of balance sheet and earnings statement, etc., and may collect and distribute information on volume of business transacted, inventories of merchandise on hand, simplification and standardization of products, stabilization of prices, and all matters which may arise from time to time relating to the growth and development of industry and commerce in order to promote stabilization of employment and give the best service to the public. Much of this sort of exchange of information and data is already being carried on by trade associations now in existence. A great deal more valuable work of this character is possible.

3. The public interests shall be protected by the supervision of companies and trade associations by the Federal Trade Commission or by a bureau of the Department of Commerce or by some Federal supervisory body specially constituted.

4. All companies within the scope of this plan shall be required to adopt standard accounting and cost systems and standardized forms of balance sheet and earnings statement. These systems and forms may differ for the different industries, but will follow a uniform plan for each industry as adopted by the trade association and approved by the Federal supervisory body.

5. All companies with participants or stockholders numbering 25 or more and living in more than one State, shall send to its participants or stockholders and to the supervisory body at least once each quarter a statement of their business and earnings in the prescribed form. At least once each year they shall send to the participants or stockholders and to the supervisory body a complete balance sheet and earnings statement in the prescribed form. In this way the owners will be kept informed of the condition of the business in such detail that there may be no criticism of irregularity or infrequency of statements or methods of presentation.

6. The Federal supervisory body shall cooperate with the Internal Revenue Department and the trade associations in developing for each industry standardized forms of balance sheet and income statement, depending upon the character of the business, for the purpose of reconciling methods of reporting assets and income with the basis of values and income calculated for Federal tax purposes.

7. All of the companies of the character described herein may immediately adopt the provisions of this plan but shall be required to do so within three years unless the time is extended by the Federal supervisory body. Similar companies formed after the plan becomes effective may come in at once but shall be required to come in before the expiration of three years from the date of their organization unless the time is extended by the Federal supervisory body.

8. For the protection of employees, the following plans shall be adopted by all of these companies:

(a) *A workmen's compensation act*, which is part of the legislation necessary under this plan, shall, after careful study, be modeled after the best features of the laws which have been enacted by the several States.

(b) *Life and disability insurance*.—All employees of companies included in this plan may, after two years of service with such companies, and shall, before the expiration of five years of service, be covered by life and disability insurance.

I. The form of policy shall be determined by the association of which the company is a member and approved by the Federal supervisory body. The policy will belong to the employee and may be retained by him and kept in full force when he changes his employment or otherwise discontinues particular service as outlined later.

II. The face value of a policy shall be for an amount approximately equal to one year's pay, but not more than \$5,000, with the exception that the employee may, if he desires, increase at his own cost the amount of insurance carried, subject to the approval of the board of administrators, later defined.

III. The cost of this life and disability insurance shall be paid one-half by the employee and one-half by the company for which he works, with the following exception: The company's cost shall be determined on the basis of premiums at actual age of employees less than 35 years old and on the basis of 35 years of age for all employees 35 or over and shall be a face value of approximately one-half a year's pay but limited to a maximum premium for \$2,500 of insurance. An employee taking out insurance at age 35 or over will pay the excess premium over the amount based upon age 35. This will remove the necessity for restriction against engaging employees or transferring them from one company to another because of advanced age, as it will place no undue burden of high premiums upon the company.

IV. The life and disability insurance may be carried by a life insurance company selected by the trade association and approved by the Federal supervisory body or may be carried by a company organized by the trade association and approved by the Federal supervisory body, or a single company may be formed to serve all associations.

V. The administration of the insurance plan for each company shall be under the direction of a board of administrators consisting of representatives, one-half appointed by the management and one-half elected by the employee members. The powers and duties of the board for each company will be to formulate general rules relating to eligibility of employees, etc., but such rules shall be in consonance with the general plan laid down by the general board of administration of the trade association of which the company is a member, and approved by the Federal supervisory body.

VI. Provision for the continuation of a policy after an employee leaves one company and goes to another in the same association, or goes to a company in another trade association; continuance of the policy after retirement on pension; provisions with regard to beneficiaries; total or partial disability; method of payment of premiums



by pay-roll deductions or otherwise, weekly, monthly, or annually, shall be embodied in the plan formulated by the trade association, with the approval of the Federal supervisory body.

VII. If an employee leaves a company to go with one which is not a member of the trade association; if he engages in business for himself; or if he withdraws from industrial or commercial occupation, he may elect to retain the portion of the policy for which he has paid, in whole or in part, by the continued payment of the proportional full premium costs, or he may receive a paid-up policy, or be paid the cash surrender value for the part for which he has been paying the premiums. The cash surrender value of that portion of the policy paid for by the company will be paid to the company which paid the premiums.

(c) *Pensions*.—All employees of companies included in this plan shall be covered by old age pension plans which will be adopted by the trade associations and approved by the Federal supervisory body. The principal provisions will be as follows:

I. All employees may, after two years of service with a company coming within the scope of this plan, and shall, before the expiration of five years of service, be covered by the old age pension plan.

II. All employees after two years' service may, and after five years' service shall be required to, put aside a minimum of 1 per cent of earnings, but not more than \$50 per year, for the pension fund. The employee may, if he desires, put aside a larger amount, subject to the approval of the board of administrators.

III. The company shall be required to put aside an amount equal to the minimum stated above, namely 1 per cent of earnings of employees, but not more than \$50 per year per employee.

IV. The above minimum percentage shall be the same for all employees who are less than 35 years of age when payments begin and the minimum percentage for these employees shall remain the same thereafter. The percentage to be set aside by employees coming into the pension plan at 35 years of age or over shall be so determined that it will provide a retiring allowance at age 70 the same as though they had begun 1 per cent payments at the age of 35. These provisions enable employees to go from one company to another in the same association or to different associations at any age with provision for retiring allowance which will be not less than the minimum rate of an employee who entered the pension plan at age 35.

V. The amounts set aside by the employee and the company with interest compounded semiannually at 5 per cent until retirement at age 70, for a typical average employee, would provide an annuity of approximately one-half pay.

VI. The administration of the pension plan for each company shall be under the direction of a board of administrators, consisting of representatives, one-half appointed by the management and one-half elected by the employee members. The powers and duties of the board for each company will be to formulate general rules relating to eligibility of employees, conditions of retirement, etc., but such rules shall be in consonance with the general plan laid down by the general board of administration of the trade association of which the company is a member, and approved by the Federal supervisory body.

VII. The amounts collected from the employees and the companies shall be placed with a pension trust organized by the association, the management of which shall be under the direction of the general board of administration referred to hereafter. In no case shall such funds be left under the control of an individual company.

VIII. The pension trust shall invest all funds and place them to the credit of the individual employees, including the income earned by the trust. If an employee goes from one company to another in the same association, the funds accumulated to his credit shall be continued to his credit with proper record of transfer. If an employee goes to a company in another association, the funds accumulated to his credit shall be transferred to his credit in the pension trust of the association to which he goes. If an employee goes to a company which does not come under these provisions or which is not a member of a trade association, goes into business for himself, or withdraws from an industrial or commercial occupation, the amount of his payments plus the interest at the average rate earned by the funds shall be given to him. If an employee dies before reaching retirement age, his beneficiary will receive the amount of his payments plus interest at the average rate earned by the funds. When an employee reaches retirement age, the entire amount accumulated to his credit, including his own payments and those of the company, plus accumulated interest, will be given to him in the form of an annuity. If an employee goes to a company which does not come under these provisions or which is not a member of a trade association, goes into business for himself, or withdraws from industrial or commercial occupation, he may elect to let the amount to his credit (namely, his own payments plus those of the company and the accumulated interest) remain with the pension trust for transfer, if he should return to the employ of any company coming within the provisions of this plan. If he does not return to the employ of a company coming under these provisions, he may at any time thereafter withdraw the amount of his own payments plus interest at the average rate earned by the funds up to that time. Company contributions and accumulated interest credited to employees who die or, for reasons indicated above, receive or withdraw their own contributions and interest, shall be returned to the employer or employers who made the contributions.

IX. The rules governing the payments of pensions on retirement and all other rules governing its continuance shall be made by the trade association, approved by the Federal supervisory body, and observed by the general board of administration and the boards of administration of the member companies.

(d) *Unemployment insurance.*—All employees on piecework, hourly work, daily, weekly, or monthly work, with normal pay of \$5,000 per year or less (approximately \$96.15 per week) shall be covered by unemployment insurance.

I. All such employees may, after two years of service with a company coming within the provisions of this plan, and shall, after five years of service, be each required to put aside a minimum of 1 per cent of earnings, but not more than \$50 per year for an unemployment insurance fund.

II. The company shall be required to put aside an amount equal to that put aside by the employees, as set forth above, namely 1 per cent



of the earnings of each employee, but not more than \$50 per year for each such employee.

III. If a company regularizes and guarantees employment for at least 50 per cent of the normal wage paid each year to such employees, the company assessment for employees covered by such guarantee need not be made, but the employees will pay in a minimum of 1 per cent of earnings, but not more than \$50 per year, into a special fund for their own benefit.

If such an employee leaves the company, dies, or retires on pension, the amount to his credit in the special fund plus interest at the average rate earned by the special fund, shall be given to him or to his beneficiaries or added to his pension.

IV. If a company so plans its work that it is able to reduce unemployment, when the amount of such company's credit in the normal unemployment fund is equal to but not less than 5 per cent of the normal annual earnings of the employees covered, the company may cease making payment to the fund. Employees' payments will continue. The company will resume payments when its credit in the normal unemployment fund falls below 5 per cent of normal annual earnings of the employees covered.

V. When the weekly payments made from the fund for unemployment benefits amount to 2 per cent or more of the average weekly earnings of participating employees, the company shall declare an unemployment emergency, and normal payments by the employees and the company shall cease. Thereafter *all* employees of the company (including the highest officers) receiving 50 per cent or more of their average full-time earnings shall pay 1 per cent of their current earnings to the unemployment fund. A similar amount shall be paid into the fund by the company. The unemployment emergency shall continue until normal conditions are restored, which shall be determined by the board of administrators of each company. Thereupon normal payments will be resumed.

VI. The main provisions for the distribution of the funds shall follow along these lines, unless modified by the board of administrators as set forth in section D, paragraph VII, hereof. A certain small percentage of the normal payments of the employees and the company may be considered as available for helping participating employees in need. A larger percentage of such normal payments may be considered as available for loans to participating employees in amounts not exceeding \$200 each, with or without interest as may be determined by the board. The balance of the funds shall be available for unemployment payments. Unemployment payments shall begin after the first two weeks of unemployment and shall amount to approximately 50 per cent of the participating employee's average weekly or monthly earnings for full time, but in no case more than \$20 per week. Such payments to individual employees shall continue for no longer than 10 weeks in any 12 consecutive months unless extended by the board. When a participating employee is working part time because of lack of work and receiving less than 50 per cent of his average weekly or monthly earnings for full time, he shall be eligible for payments to be made from the fund, amounting to the difference between the amount he is receiving as wages from the company and the maximum he may be entitled to as outlined above.



VII. The custody and investment of funds and administration of the unemployment insurance plan for each company shall be under the direction of a board of administrators consisting of representatives, one-half appointed by the management and one-half elected by the employee members. The powers and duties of the board shall be to formulate general rules relating to eligibility of employees, the waiting period before benefits are paid, amounts of benefits and how long they shall continue in any year, whether loans shall be made in time of unemployment or need, whether a portion of the funds shall be placed at the disposal of the board for relief from need arising from causes other than unemployment, etc., but such rules shall be in consonance with the general plan laid down by the general board of administration of the trade association of which the company is a member, and approved by the Federal supervisory body.

VIII. If an employee leaves the company and goes to work for another company coming within the provisions of this plan, the proportionate amount remaining of his normal contributions, plus interest at the average rate earned by the funds, shall be transferred to such company and to his credit. If he leaves for other reasons, dies, or retires on pension, the proportionate amount remaining of his normal payment, plus interest at the average rate earned by the funds, shall be given to him, or to his beneficiary, or added to his pension. When such employee's credit is transferred to another company, or paid to the employee or to his beneficiary under this provision, an equal amount shall be paid to the cooperating company.

*General administration.*—Each trade association will form a general board of administration which shall consist of nine members, three to be elected or appointed by the association, three to be elected by the employees of the member companies, and three, representing the public, to be appointed by the Federal supervisory body. The members of the general board, except employee representatives, shall serve without compensation. The employee representatives shall be paid their regular rates of pay for time devoted to board work, and all members shall be paid traveling expenses, all of which shall be borne by the trade association. The powers and duties of this general board shall be to interpret the life and disability insurance, pension, and unemployment insurance plans adopted by the trade association and approved by the Federal supervisory body, supervise the individual company boards of administration, form and direct a pension trust for the custody, investment, and disbursements of the pension funds, and in general supervise and direct all activities connected with life and disability insurance, pension, and unemployment insurance plans.

*Conclusion.*—The forgoing plan tends to put all domestic corporations of the class described on a parity for domestic business, thereby removing the inequalities of the different laws in the several States, provides for standard forms of financial reports and their periodical issuance for the information of stockholders, places on organized industry the obligation of coordinating production and consumption, and of a higher degree of stabilization. This will tend to assure more uniform and continuous employment for the worker and to remove fear from his mind, allowing him to devote himself whole-heartedly to his task. Cost of the product will include these items and will

therefore be paid for by the users of the article or service and not in general by members of the community reached by the vicarious method of the imposition of a tax. Then organized industry will be in the position that it should rightly assume of serving the public, with public confidence and with the joint participation of workmen and management in the solution of these vital and far-reaching problems.

*Addendum.*—The following provision is suggested to place domestic corporations of the sort described on a parity with foreign competition: Any company engaged in export business may, upon application to and approval by the Federal supervisory body, deduct from its Federal income tax the equivalent of X per cent of its export sales, this X per cent deemed to be the equivalent in selling price of the various provisions for the benefit of employees which the company must make under this plan and from which some foreign companies which the domestic companies have to meet in competition are free.

By this method American industry can discharge its obligation to its employees and, by holding its position in the markets of the world, bring additional work to America.

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### Effect of Depression on Office Employees

A STUDY<sup>1</sup> was made recently by members of the office management class of Pierce School of Business Administration of the effect of the business depression upon the employment policy of large business institutions in Philadelphia and the vicinity. Included in the study were offices of retail and wholesale establishments, manufacturing concerns, financial institutions, public utilities, hotels, newspapers, etc. The total number of establishments which co-operated in furnishing information for the survey was 231, with an average of more than 41,000 employees.

In the retail group, which numbered 46 companies with a total of 8,159 employees, the depression had been felt severely. However, less than half of the companies had passed a part of the burden on to employees through reduction of salaries, shorter working hours, or lay-offs. The measures followed by the different stores in the attempt to meet the situation included in 6 instances the provision of extra work, such as, for example, circularizing dormant accounts, and in 8 cases the adoption of part-time schedules, while 14 companies were compelled to lay off employees and found it necessary to reduce salaries, the average wage cut amounting to 11.2 per cent. During the year preceding the study more than half of the companies took on new employees, although these were mainly replacements. In nine cases only were office economies instituted, such as more careful supervision of the use of supplies or of the telephone.

The wholesale group consisted of 47 houses with 3,297 employees. While these concerns had felt the depression, it was said to have been less acute perhaps with them than with some of the other types of offices. Four of the companies had been able to find extra work for their employees to fill in lack of normal work. Only 1 company reduced.

<sup>1</sup> Pierce School of Business Administration, Philadelphia. Press release, July 25, 1931.



the working hours but 11 companies reduced the personnel. In one company all but 1 of the 17 office employees were released, but in the other offices the reductions ranged from 1 to 25 per cent. An average reduction of salaries of 10 per cent was put into effect by 15 of these offices. New office workers were taken on during the year by 13 companies, mainly as replacements or on account of seasonal needs. Special attention to office economies was given by 13 companies. The measures taken included redistribution of the work, installation of new office machinery, and more attention to the output of individual employees. In one office each employee was given an opportunity to work in every department of the office, with the result that employees were placed in jobs for which they were best fitted. In about 66 per cent of these concerns the employees apparently did not feel any ill effects of the depression, regardless of the conditions faced by their employers.

The manufacturing group comprised 53 companies with 5,699 office employees. This group was perhaps the most seriously affected by the depression of any of those included in the study. Most of these companies did not attempt to find substitute work for employees, but when they did it was largely of a maintenance nature. Ten offices found it necessary to put employees on part time. Two of these companies limited the part-time work to the months of December and January, while the remaining eight reduced the working week an average of 50 per cent. Eighteen of the companies laid off employees, in two instances the lay-offs being large. Many of the offices made substitutions of replacements in personnel, but in 11 cases there was an actual increase in business so that additional workers were employed. In 12 offices wages were cut, the reductions averaging 14 per cent. Of the entire group, 40 companies were definitely affected by the depression, although only 29 resorted to part-time work, lay-offs, or wage cuts in the effort to reduce costs.

The financial group, comprising 59 companies with approximately 9,200 employees, was made up of 39 banks, 10 investment houses, 7 insurance companies, and 3 credit firms. Of these companies, only four made an effort to find extra work for employees. In only two instances were part-time schedules instituted, although 13 offices were forced to lay off employees. The office reductions in general were small, but in one instance 33 per cent of the employees were released. In two cases the lay-offs were the result of mergers. Seven companies reduced salaries, in three cases the cuts ranging from 5 to 25 per cent. Increases in the volume of business caused 10 companies to take on new employees during the year. A variety of office economies were instituted by 14 of the companies, these measures including, in addition to the usual more careful use of supplies and telephone, job analysis, checks of individual production, and the use of new office equipment, such as dictaphones and bookkeeping and billing machines. In general the companies in the financial group were not so much affected by the depression as some of the other groups, the volume of business in several banks having increased during the year. The investment houses, on the other hand, felt the adverse effects of business conditions most keenly. Of the entire group, only about one-fourth found it necessary to lay off employees or to put them on part time, or to reduce wages.



The miscellaneous group was made up of 26 companies, including public utilities, newspapers, publishing houses, hotels, theaters, and a few other types of business. This group was made up of large concerns employing altogether more than 15,000 persons. Like the others the group was seriously affected by the depression, but only six of the companies put the employees on part time, usually the 5-day week, and in one case this was continued for only three months.

The majority of the companies maintained their full forces, as only seven laid off any of the workers. Eight companies cut salaries, the cuts ranging from 5 to 33 per cent.

Summing up the results of the survey, it is seen that 28 of the 231 companies provided other than routine work in order to keep the workers employed. Part-time work was instituted by 27 companies and 63 companies found it necessary to lay off part of the workers. Pay was reduced in 54 offices, but 177, or more than three-fourths of the companies, did not find this necessary. Eighty-nine of the companies took on new employees during the year preceding the study, but 142 did not even replace workers who left from any of the various causes. Several of the companies which were obliged to lay off employees stated that they would give such employees preference when business improved sufficiently to warrant adding employees to their force.

### Employment Stabilization in California<sup>1</sup>

THE employment stabilization program sponsored by the California Chamber of Commerce has been adopted by 450 firms in the State, employing a total of more than 250,000 workers. The chairman of the committee reports<sup>2</sup> that the adoption of the program has resulted in the retention of many thousands of workers who would otherwise have lost their jobs and that the result has been an improvement in morale among these workers in addition to the stimulation to business through the maintenance of buying power.

The committee was organized in January, 1931, the committee personnel having been selected to provide complete representation to all major lines of industry and agriculture throughout the State. It was planned that the committee should operate as a clearing-house agency of all business groups for the formation and state-wide promulgation of the special measures necessary to deal with the problem. Since adequate advance knowledge of seasonal labor needs, by industries and districts, is essential in planning a sound program of employment stabilization or promotion of more continuous employment, the committee adopted a system of reports to be supplied by the different employers which would furnish a basis for estimates of future labor requirements. A report blank is mailed each quarter to the individual organizations cooperating with the committee. This report calls for the total number of workers employed in each month of the quarter in the present year and the past two years, and the estimated number of workers to be hired during the next quarter or to be released. This information is combined with reports from other organizations and shows the

<sup>1</sup> California State Chamber of Commerce. Employment stabilization program, San Francisco, 1931.

<sup>2</sup> The President's Organization for Unemployment Relief. Washington, D. C. Press release Aug. 31, 1931.

probable employment situation of the State in the six regional districts into which the State has been divided. These figures allow a more intelligent planning of emergency or relief works to fit in the general employment situation and prevent the pyramiding of activity in places and during periods when high seasonal activity is anticipated, with the result that there is a better general leveling of employment. In addition there is further clearing-house action provided for in the exchange of information and ideas as to the various methods followed by the individual employers in meeting the employment problem.

Federal, State, and municipal construction and development projects provide a large volume of continuous as well as emergency employment. These projects may to a certain extent be adjusted to the employment situation, and the committee, therefore, is trying to bring about the timing of these projects more largely during periods when the normal employment requirements of business organizations are at their lowest point. To meet the present situation the committee has endeavored to speed up the carrying out of all such projects at the present time, when the need for opportunity for employment is especially acute, and also to secure an equal opportunity for California industries to provide materials and supplies for these projects, in that way providing additional employment through these industries.

The report states that—

It is generally accepted that no one industry can control the fundamental cycles of business, but that management can exercise control over the extent to which it is influenced by these periodic swings; and that in this respect the first responsibility of management in maintaining permanent employment is to plan and operate the business for the long pull. This procedure contemplates the development of adequate forecasts over long periods, and the adherence to these forecasts as closely as possible; for if these forecasts and the plans resulting from them are not adhered to when rapid expansion seems to belie them, they are likely to be valueless. This likewise involves a related important management responsibility of developing a personnel sufficiently flexible as to the type of work it may do and as to the amount of overload it may carry in expansion periods, in order that this personnel may absorb any minor fluctuations impossible to forecast.

The specific measures which the committee recommended to be followed by the business organizations of the State are as follows:

1. Give all wage earners now on the pay roll every reasonable assurance of the safety of their jobs, in order to relieve their fear of being added to the unemployed and to revive their normal purchasing activities.
2. Provide the maximum amount of employment consistent with production schedules and sound financial practice; though it be temporarily necessary, wherever possible, to stagger or rotate employment or place some jobs on a shorter working period basis, in order to distribute work available over as many as possible employees.
3. Hold layoffs to a minimum by eliminating overtime and distributing such excess work to additional employees where physically feasible.
4. Study possibilities within each organization of further distributing work among a larger number of employees, consistent with efficient operations. (For example, staggered employment, shorter working hours or working periods, rearranging vacation schedules, extra vacations and such other time off on a voluntary basis, etc.)
5. Analyze past sales for most profitable lines, customers, and territories, and concentrate selling efforts on them. Review sales for past three to five years to determine: (1) Lines having best turnover and contributing most to net profits; (2) customers most profitable to serve; (3) territories that yield the most profit. Determine possibilities and probable cost of building up the less

productive lines, customers, and markets. If probable returns do not warrant effort and expense required, eliminate these unprofitable lines, customers, and areas.

6. Analyze sales and production schedules for possibilities of reorganizing operating methods to reduce seasonal activities and lengthen out average employment periods on as many operations as possible. Enlist dealer cooperation in ordering to make possible more accurate planning of production.

7. Accumulate maintenance work for normal slack periods. (Painting, repairing, general clean-up, overhauling equipment, and machinery.)

8. Study possibilities of exchanging labor between different operations, departments, and plants, and practice same where feasible.

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### Work a Prerequisite to Unemployment Relief in Grand Rapids, Mich.

**A**LL able-bodied unemployed men in Grand Rapids, Mich., must work on public improvements in order to obtain assistance, according to a mimeographed statement from A. T. McFadyen, acting secretary of the Grand Rapids Association of Commerce. This requirement has been in force since December, 1929. In order to furnish work the city has undertaken numerous projects that had been shelved in earlier years, owing to lack of funds. The work is financed out of funds budgeted to the various city departments, the money being raised for relief through bond issues based on a special assessment of one-fourth of 1 per cent of the assessed valuation of property.

About 2,000 men, largely heads of families, are engaged in this work. Payment for work done is largely in scrip, the scrip being redeemable in purchases from the city's store, where food, clothing, etc., are sold at low prices. The wage rate for city work is 40 cents an hour. Men work on half-day shifts, and the number of shifts of work given is based upon the number of dependents the individual has. A person applying for assistance is given a thorough physical examination by the city doctor to determine whether he is capable of work and for what work he is best fitted.

It is stated that the work done includes creating a new park, widening and extending streets, building sidewalks, laying water mains, and building a swimming pool. For every dollar spent in public relief 80 cents in labor on public improvements accrues to the city.

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### Recommendations Concerning Employment Service in New Jersey

**A**N ADVISORY committee on employment problems was appointed November 6, 1930, by the commissioner of labor of New Jersey. At the first meeting of this organization a committee on study of public employment offices was appointed. The latter committee has recently submitted a report,<sup>1</sup> including an analysis of

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<sup>1</sup>New Jersey. Advisory Committee on Employment Problems to the Department of Labor. The Federal-State-Municipal Employment Service of New Jersey. An analysis of its organization and operation, by Mary LaDame, and recommendations of committee on study of public employment offices. Trenton, July, 1931.



the organization and operation of the Federal State-Municipal Employment Service of New Jersey, and recommending that—

1. The setting up and operation of an adequate employment service in New Jersey to be the State's responsibility rather than that of local governments.

2. The functions of such a service be—

(a) The determination of the scope of its placement work in relation to the adequacy of existing commercial and noncommercial employment agencies;

(b) The assumption of leadership in improving and coordinating the activities of both public and noncommercial employment agencies;

(c) Serving as a source of authoritative data on unemployment throughout the State, in order to aid in employment stabilization.

3. The administration of the service by the employment bureau of the State department of labor be continued.

4. The State be divided by the bureau of employment into nine employment districts, the main offices being located in the following nine centers: Newark, Jersey City, Paterson, Philipsburg, New Brunswick, Asbury Park, Trenton, Atlantic City, and Camden. Furthermore, that each of these main offices have the responsibility of serving the employment needs in its district and that subsidiary offices be developed according to needs.

5. The cooperation of employers and the community at large be secured: (1) By requesting a state-wide committee and, if practicable, local committees representing citizens in each center in which an office is established to cooperate with the employment bureau; and (2) by the development of a program for the information of the public concerning the purpose, policies, and accomplishment of the bureau.

6. Standards regulating personnel, premises, and procedure in placements be set up, to which any outside organization's office shall subscribe to become eligible for affiliation with the State employment service.

7. Clearance among the regular and affiliated offices of the service be systematically established and, as a prerequisite to successful functioning, that a specific service area be designated for each local office.

8. A manual of policies and practices to govern the local offices and also the administrative office, including specifications of the duties of each position, be prepared, reviewed each year, and revised according to current requirements.

9. A training program be formulated for the personnel of the service, especially for new employees.

10. A technique for the supervision of local offices be developed, which will provide for periodic conferences with the staff of each office, and the heads of all offices.

11. An assistant director be added to the staff of the State bureau of employment, and that the duties of his position include the supervision of private employment agencies.

12. A new position to provide for the duties involved in the direction of a local office be created, and that the requirements for such position be such as to guarantee the selection of competent candidates with sufficient leadership to inspire the confidence of the community.

13. The following minimum scale of salaries be put into effect: Director of the State bureau of employment, \$5,000; assistant director (new position to be created), \$3,600; executive in charge of a local office (new position to be created), \$3,000; senior interviewer, \$2,400; junior interviewer, \$1,800.

14. The suitability and attractiveness of local office quarters be emphasized.

15. A conference of public-school representatives and other interested groups be called by the commissioner of labor, for the discussion of the development of an adequate program for placing boys and girls up to 21 years of age.

16. In order to study scientifically the problem involved in operating the Federal-State-Municipal Employment Service of New Jersey, one of its local offices should be carried on as a "master" or demonstrating agency to develop and determine the most effective management methods; that, if required, "funds from private sources be accepted for this purpose and that such legislation as may be necessary to enable the commissioner of labor to accept funds from private sources be enacted."

17. A minimum of \$200,000 a year be recognized as the sum required to develop the service in accordance with the above recommendations.

18. The law of 1918 for the creation in the department of labor of a migrant welfare and employment bureau be repealed as well as the law of 1919 setting up a bureau of employment for soldiers and sailors

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### New York Unemployment Relief Act

IN AN extraordinary session called by Governor Roosevelt, the Legislature of New York enacted a law (ch. 798) providing for unemployment relief. The law became effective immediately upon the signature of the governor on September 23, 1931.

The purpose of the act as stated in the preamble is "to relieve the people of the State from the hardships and suffering caused by unemployment, creating and organizing for such purpose a temporary emergency relief administration, prescribing its powers and duties, and making an appropriation for its work."

The personnel of the administration commission, which is to disburse the \$20,000,000 fund for idle relief, includes Jesse I. Straus, of New York City, chairman; Philip J. Wickser of Buffalo; and John J. Sullivan, president of the New York State Federation of Labor. The relief fund is to be raised by a 50 per cent increase in the State income tax. Taxpayers will have six months' grace in which to pay the additional tax. In order to commence the work for the unemployed at once, the necessary funds will be raised by short-term notes, which will be redeemed out of the taxes to be collected in 1932 on incomes received in 1931.

The act recognizes the economic condition existing, and that the duty of furnishing aid to those in need or unemployed is primarily an obligation of the various municipalities, yet it is considered vitally necessary to supplement the local relief work by State action. The

act is therefore declared to be a measure adopted for the public health and safety of the people, and occasioned by an existing emergency. The provisions of any law, general, special, or local, which limits or prohibits the furnishing of shelter, fuel, clothing, light, medicine, and medical attendance to persons other than poor persons shall not apply to the relief authorized by the act.

The charter in some cities must be amended to allow the city to use any of the funds allocated by the State. Especially is this the case in New York City because of a provision in the city charter which forbids the use of official funds for home relief—food, shelter, and clothing.

The temporary State agency is to function only during the emergency period, which has been defined to mean the period between November 1, 1931, and June 1, 1932. The members of the administration are to serve without compensation.

The principal office is designated to be established at Albany, but offices in other localities of the State may be maintained.

Two forms of relief are provided: (1) Work relief; (2) home relief. "Work relief" is defined as:

Wages paid by a municipal corporation to persons, who are unemployed or whose employment is inadequate to provide the necessities of life, and/or their dependents, from money specifically appropriated or contributed for that purpose during the emergency period, for the performance of services or labor connected with work undertaken by such corporation independent of work under a contract or for which an annual appropriation has been made.

"Home relief," on the other hand—

Means shelter, fuel, food, clothing, light, medicine or medical attendance furnished by a municipal corporation to persons or their dependents in their abode or habitation and does not include relief to veterans under existing laws, old age relief or allowances made to mothers for the care of dependent children.

It is also provided that the relief committee shall make certain preliminary studies as follows:

(a) Make or cause to be made with the aid of such data as may be available a thorough and comprehensive study and survey of unemployment within the State, the occupations, industries, and trades most seriously affected thereby and the number of persons suffering or in want by reason thereof.

(b) Discover the extent and nature of public work required or useful to be done by the State or any political subdivision thereof.

(c) Ascertain the amount of resources made available by public appropriations or private contributions for the relief of unemployed persons throughout the State.

For this purpose the committee may enlist the assistance of other State agencies and may cooperate with existing national, State, or local unemployment relief commissions.

In order to facilitate the administration of the act each city of the State, and the territory of each county beyond the limits of the city, is considered a separate public welfare district, designated as city and county public welfare districts, respectively. Before the act shall apply to such district, the governing board of the respective political subdivision must adopt by resolution an acceptance of the provisions of the act, and file a certified copy of same with the commission on or before November 16, 1931.

The chief official of a city and the governing board of a county may establish in the respective places an emergency work bureau



consisting of three or more persons. Such proper city or county official shall represent the temporary emergency relief administration in providing home and work relief and in administering the provisions of the act. A provision is made also in the act for any municipality to furnish relief to unemployed needy who have been residents of the State for two years prior to November 1, 1931. To this end the legislative body of such municipality may appropriate money to pay for work or home relief, and such municipality may even raise funds by interest-bearing obligations. In the distribution of home relief, investigations must be conducted in every case. Before a municipality may receive aid for work relief an emergency bureau must be established and an investigation and survey made as to the need for public works.

In the administration of the act it is provided that offers of personal service or other aid may be accepted from any person or organization, and a municipal corporation may accept contributions from individuals or corporations.

The act provides penalties for violations of any part of the act, and all rules adopted by the administration relief commission shall have the force and effect of law.

### Measures to Alleviate Unemployment in Wisconsin

IN A pamphlet entitled "The alleviation of unemployment in Wisconsin"<sup>1</sup> the unemployment problems and methods of relief adopted in Wisconsin are discussed in some detail. The subjects are considered in nine chapters, taking up in turn the unemployment problem as it exists in Wisconsin, relief during 1930, public works and unemployment, a discussion of what management can do, the organization and program of the citizens' committee on employment, the State unemployment commission employment offices, employment statistics, and the history of proposed legislation for unemployment insurance.

The authors of the study under review conclude that the growth in technological unemployment in Wisconsin conformed with that in other sections of the country. In 1930 the decline in business was so rapid and progressed so steadily that the usual seasonal increases and decreases were almost obliterated. It is also pointed out that the decline in employment did not occur suddenly in the State but started in September, 1929, and became steadily greater.

It is brought out that \$2,000,000 was spent out of tax funds to furnish relief to the unemployed of Wisconsin during 1930. The cost of relief per family per month is quoted and shows considerable variation.

*Average cost to relief agency to furnish food and milk to a family of five persons for one month during the winter of 1930-31*

City relief agency where commissioner gives an order for a definite amount of money to the family but where no discounts from the grocer are asked for	\$38. 00
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<sup>1</sup> By Don D. Lescohier and Florence Peterson, published by the Industrial Commission of Wisconsin, Madison, 1931.

Private agency which is supported by city funds where an order for specific groceries is given to family and agency has bargained with grocers for discount.....

City agency which buys in carload lots and makes up baskets each week.....<sup>2</sup> \$30. 19

County agency which buys in carload lots and makes up baskets each week.....<sup>2</sup> 18. 04

.....<sup>2</sup> 18. 11

Made-work programs were inaugurated in many cities and counties during the winter of 1930-31, and expanded public-works programs were of considerable importance in furnishing work to persons who might otherwise have remained unemployed.

In touching upon the contribution that management has made toward reducing unemployment, and may still make, the various phases of stabilization are discussed. It is suggested that management plan and budget work, manufacture to stock, standardize and diversify products, and take such other action as may be possible to give greater employment.

### Unemployment in Foreign Countries

THE following table gives detailed monthly statistics of unemployment in foreign countries, as shown in official reports, from January, 1930, to the latest available date.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES<sup>1</sup>

Date (end of month)	Australia		Austria	Belgium				Canada	
	Trade-unionists unemployed		Compulsory insurance, number unemployed in receipt of benefit	Unemployment insurance societies				Trade-unionists unemployed	
	Number	Per cent		Wholly unemployed		Partially unemployed		Number	Per cent
				Number	Per cent	Number	Per cent		
1930									
January	( <sup>2</sup> )	-----	273, 197	22, 542	3. 5	25, 782	4. 0	22, 795	10. 8
February	( <sup>2</sup> )	-----	284, 543	16, 085	2. 6	31, 222	4. 9	24, 175	11. 5
March	63, 144	14. 6	239, 094	14, 030	2. 2	28, 469	4. 5	22, 912	10. 8
April	( <sup>2</sup> )	-----	192, 477	13, 715	2. 2	36, 605	5. 8	18, 581	9. 0
May	( <sup>2</sup> )	-----	162, 678	12, 119	1. 9	38, 761	6. 1	20, 424	10. 3
June	80, 595	18. 5	150, 075	12, 226	1. 9	41, 336	6. 5	21, 380	10. 6
July	( <sup>2</sup> )	-----	153, 188	15, 302	2. 4	48, 580	7. 7	18, 473	9. 2
August	( <sup>2</sup> )	-----	156, 145	17, 747	2. 8	51, 649	8. 2	18, 232	9. 3
September	90, 379	20. 5	163, 894	23, 693	3. 8	61, 623	9. 9	19, 356	9. 4
October	( <sup>2</sup> )	-----	192, 778	27, 322	4. 3	54, 804	8. 5	22, 403	10. 8
November	( <sup>2</sup> )	-----	237, 745	38, 973	6. 1	76, 043	12. 0	28, 408	13. 8
December	104, 951	23. 4	294, 845	63, 585	9. 3	117, 167	17. 0	37, 339	17. 0
1931									
January	( <sup>2</sup> )	-----	331, 239	77, 181	11. 1	112, 734	16. 2	33, 664	16. 0
February	( <sup>2</sup> )	-----	334, 041	81, 750	11. 7	121, 906	19. 4	31, 617	15. 6
March	113, 614	25. 8	304, 084	81, 305	11. 3	125, 972	17. 7	32, 300	15. 5
April	( <sup>2</sup> )	-----	246, 845	70, 377	10. 0	110, 139	15. 6	30, 778	14. 9
May	( <sup>2</sup> )	-----	208, 852	56, 250	7. 9	97, 755	13. 8	32, 086	16. 2
June	118, 424	27. 6	191, 150	62, 642	8. 9	101, 616	14. 4	32, 682	16. 3
July	-----	-----	194, 364	64, 644	9. 1	116, 747	16. 3	( <sup>2</sup> )	16. 2
August	-----	-----	196, 321	70, 893	9. 9	120, 669	16. 8	( <sup>2</sup> )	15. 8
September	-----	-----	202, 130	-----	-----	-----	-----	-----	-----

See footnotes at end of table.

<sup>2</sup> The difference in the content of the family's weekly allowance between these two is rather interesting. The food issuance of the Milwaukee County Outdoor Relief Department is based upon a dietary worked out by the county dietitian and approved as a minimum for health by the Home Economics Department of the University of Wisconsin. Of the total monthly allowance, \$9.02 is for provisions and \$9.09 for milk. The Kenosha Outdoor Relief Agency averages \$3.10 for milk and \$14.95 for other provisions.

## STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Czechoslovakia			Danzig (Free City of)	Denmark		Estonia	Finland
	Number of unemployed on live register	Trade-union insurance funds—unemployed in receipt of benefit		Number of unemployed registered	Trade-union unemployment funds—unemployed		Number unemployed remaining on live register	Number of unemployed registered
		Number	Per cent		Number	Per cent		
1930								
January	73,891	39,199	3.6	19,282	55,876	20.3	5,608	12,696
February	86,156	40,550	3.6	21,153	59,363	21.0	4,580	11,545
March	88,005	45,567	4.0	20,376	47,109	15.6	3,575	10,062
April	79,721	42,664	3.7	18,371	33,471	11.8	2,227	7,274
May	77,069	41,098	3.8	16,232	27,966	9.4	2,065	4,666
June	73,464	37,853	3.4	14,975	24,807	8.7	910	3,553
July	77,309	46,800	4.1	15,330	26,200	9.3	762	4,026
August	88,005	52,694	4.7	15,687	26,232	9.0	1,039	5,288
September	104,534	57,542	5.3	16,073	27,700	9.0	1,414	7,157
October	122,379	61,213	5.5	17,307	32,880	11.4	3,282	10,279
November	155,203	65,904	5.9	20,272	44,200	15.3	5,675	10,740
December	239,564	93,476	8.3	24,429	71,100	24.6	6,163	9,336
1931								
January	313,511	104,580	9.5	27,081	70,961	24.4	5,364	11,706
February	343,972	117,450	10.0	28,192	73,427	25.6	4,070	11,557
March	339,505	119,350	10.0	27,070	67,725	23.6	2,765	11,491
April	296,756	107,238	8.9	24,186	45,698	15.9	2,424	12,663
May	249,686	93,941	7.6	20,686	37,856	13.1	1,368	7,342
June	220,038	82,534	6.6	19,855	34,030	11.6	931	6,320
July	209,233	82,734	6.7	20,420	36,369	12.4	634	6,790
August	214,520			21,509			933	9,160
September	228,383							

Date (end of month)	France	Germany					
	Number of unemployed in receipt of benefit	Number of unemployed registered	Trade-unionists				Number unemployed in receipt of benefit
			Wholly unemployed		Partially unemployed		
			Number	Per cent	Number	Per cent	
1930							
January	1,484	3,217,608	1,004,787	22.0	501,950	11.0	2,482,648
February	1,683	3,365,811	1,076,441	23.5	593,380	13.0	2,655,723
March	1,630	3,040,797	995,972	21.7	576,153	12.6	2,347,102
April	1,203	2,786,912	926,831	20.3	553,098	12.1	2,081,068
May	859	2,634,718	895,542	19.5	552,318	12.0	1,889,240
June	1,019	2,640,681	896,465	19.6	578,116	12.6	1,834,662
July	856	2,765,258	930,777	20.5	631,903	13.9	1,900,961
August	964	2,883,000	984,384	21.7	670,466	14.8	1,947,811
September	988	3,004,000	1,011,820	22.5	677,627	15.1	1,965,348
October	1,603	3,252,000	1,061,570	23.6	693,379	15.4	2,071,730
November	4,893	3,683,000	1,167,930	26.0	721,658	16.1	2,353,980
December	11,952	4,384,000	( <sup>2</sup> )	31.7	( <sup>2</sup> )	16.9	2,822,598
1931							
January	28,536	4,887,000	( <sup>2</sup> )	34.2	( <sup>2</sup> )	19.2	3,364,770
February	40,766	4,972,000	( <sup>2</sup> )	34.5	( <sup>2</sup> )	19.5	3,496,979
March	50,815	4,756,000	( <sup>2</sup> )	33.6	( <sup>2</sup> )	18.9	3,240,523
April	49,958	4,358,000	( <sup>2</sup> )	31.2	( <sup>2</sup> )	18.0	2,789,627
May	41,339	4,053,000	( <sup>2</sup> )	29.9	( <sup>2</sup> )	17.4	2,507,732
June	36,237	3,954,000	( <sup>2</sup> )	29.7	( <sup>2</sup> )	17.7	2,353,657
July	35,916	3,976,000	( <sup>2</sup> )	31.0	( <sup>2</sup> )	19.1	2,231,513
August	37,673	4,215,000	( <sup>2</sup> )	33.6	( <sup>2</sup> )	21.4	2,376,589
September	38,524	4,355,000					

See footnotes at end of table.



## STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Great Britain and Northern Ireland				Great Britain	Hungary		
	Compulsory insurance				Number of persons registered with employment exchanges	Trade-unionists unemployed		
	Wholly unemployed		Temporary stoppages			Christian (Budapest)	Social-democratic	
	Number	Per cent	Number	Per cent			Number	Per cent
1930								
January	1, 183, 974	9.8	336, 474	2.8	1, 491, 519	1, 161	21, 533	14.3
February	1, 211, 262	10.0	371, 840	3.1	1, 539, 265	1, 120	21, 309	14.8
March	1, 284, 231	10.6	409, 785	3.4	1, 677, 473	983	21, 016	14.6
April	1, 309, 014	10.8	451, 506	3.8	1, 698, 386	906	20, 139	13.7
May	1, 339, 595	11.1	516, 303	4.2	1, 770, 051	875	19, 875	13.6
June	1, 341, 818	11.1	569, 931	4.7	1, 890, 575	829	18, 960	13.0
July	1, 405, 981	11.6	664, 107	5.5	2, 011, 467	920	19, 081	13.2
August	1, 500, 990	12.4	618, 658	5.1	2, 039, 702	847	21, 013	14.5
September	1, 579, 708	13.1	608, 692	5.0	2, 114, 955	874	22, 252	16.0
October	1, 725, 731	13.9	593, 223	4.8	2, 200, 413	999	22, 914	16.7
November	1, 836, 280	14.8	532, 518	4.3	2, 274, 338	975	23, 333	17.0
December	1, 853, 575	14.9	646, 205	5.3	2, 392, 738	935	24, 648	17.9
1931								
January	2, 044, 209	16.5	618, 633	5.0	2, 613, 749	953	26, 191	19.1
February	2, 073, 578	16.7	623, 844	5.0	2, 627, 559	965	27, 089	19.8
March	2, 052, 826	16.5	612, 821	5.0	2, 581, 030	996	27, 092	( <sup>1</sup> )
April	2, 027, 896	16.3	564, 884	4.6	2, 531, 674	1, 042	27, 129	( <sup>1</sup> )
May	2, 019, 533	16.3	558, 383	4.5	2, 596, 431			
June	2, 037, 480	16.4	669, 315	5.4	2, 629, 215			
July	2, 073, 892	16.7	732, 583	5.9	2, 662, 765			
August	2, 142, 821	17.3	670, 342	5.4	2, 732, 434			
September	2, 217, 080	17.9	663, 466	5.3	2, 879, 466			

Date (end of month)	Irish Free State		Italy		Latvia	Netherlands		New Zealand	
	Compulsory insurance—unemployed		Number of unemployed registered		Number unemployed remaining on live register	Unemployment insurance societies—unemployed		Trade-unionists unemployed	
	Number	Per cent	Wholly unemployed	Partially unemployed		Number	Per cent	Number	Per cent
1930									
January	31, 592	11.1	466, 231	23, 185	9, 263	56, 535	13.9	( <sup>1</sup> )	
February	( <sup>1</sup> )		456, 628	26, 674	8, 825	50, 957	12.5	4, 348	8.5
March	( <sup>1</sup> )		385, 432	28, 026	6, 494	34, 996	8.6	( <sup>1</sup> )	
April	26, 027	9.2	372, 236	24, 305	3, 683	28, 421	6.9	( <sup>1</sup> )	
May	( <sup>1</sup> )		367, 183	22, 825	1, 421	26, 211	6.3	5, 884	10.9
June	( <sup>1</sup> )		322, 291	21, 887	779	23, 678	5.5	( <sup>1</sup> )	
July	23, 393	8.2	342, 061	24, 209	607	29, 075	6.7	( <sup>1</sup> )	
August	( <sup>1</sup> )		375, 548	24, 056	573	32, 755	7.6	7, 197	13.5
September	( <sup>1</sup> )		394, 630	22, 734	1, 470	35, 532	8.2	( <sup>1</sup> )	
October	20, 775	( <sup>1</sup> )	446, 496	19, 081	6, 058	41, 068	9.6	( <sup>1</sup> )	
November	22, 990	( <sup>1</sup> )	534, 356	22, 125	8, 608	46, 807	11.8	8, 119	15.5
December	25, 622	( <sup>1</sup> )	642, 169	21, 788	10, 022	72, 191	16.5	( <sup>1</sup> )	
1931									
January	26, 167	( <sup>1</sup> )	722, 612	27, 924	9, 207	103, 728	23.4	( <sup>1</sup> )	
February	28, 681	( <sup>1</sup> )	765, 325	27, 110	8, 303	99, 753	22.2	( <sup>1</sup> )	
March	26, 825	( <sup>1</sup> )	707, 486	27, 545	8, 450	80, 525	17.7	29, 434	
April	25, 413	( <sup>1</sup> )	670, 353	28, 780	6, 360	68, 860	14.3	37, 598	
May	23, 970	( <sup>1</sup> )	635, 183	26, 059	1, 871	60, 189	12.2	36, 921	
June	23, 016	( <sup>1</sup> )	573, 593	24, 206	1, 584	59, 573	11.7	42, 523	
July	21, 427	( <sup>1</sup> )	637, 531	25, 821	2, 169	69, 026	13.3	46, 359	
August	21, 647	( <sup>1</sup> )	693, 273	30, 636		65, 952	14.8	48, 396	
September			747, 764	( <sup>1</sup> )					

See footnotes at end of table.

## STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Norway			Poland				Rumania	
	Trade-unionists (10 unions) un- employed		Number unem- ployed remain- ing on live register	Number unem- ployed registered with em- ployment offices	Industrial workers				
	Number	Per cent			Extractive and manufacturing industries— wholly unem- ployed		Manufacturing industries—par- tially unem- ployed		
Number			Per cent	Number	Per cent	Number	Per cent		
1930									
January	7,786	19.0	22,549	241,974	219,333	24.3	108,812	24.8	12,622
February	7,851	18.9	22,974	274,708	251,627	27.5	120,058	28.4	15,588
March	7,503	17.8	22,533	289,469	265,135	28.7	120,844	28.9	13,045
April	6,701	15.8	19,829	271,225	246,670	27.0	113,594	26.9	13,412
May	5,239	12.2	16,376	224,914	201,116	23.0	104,469	24.2	25,096
June	4,700	10.8	13,939	204,982	182,600	21.6	94,375	22.2	22,060
July	4,723	10.8	11,997	193,687	170,665	20.5	70,597	17.0	23,236
August	5,897	13.4	12,923	173,627	150,650	18.3	74,289	17.1	24,209
September	7,010	15.7	17,053	170,467	146,642	17.8	74,285	16.5	39,110
October	8,031	18.0	20,363	165,154	141,422	17.5	91,854	14.8	36,147
November	9,396	21.4	24,544	209,912	(2)	-----	106,835	23.6	42,689
December	11,265	25.5	27,157	299,797	(2)	-----	95,637	23.1	36,212
1931									
January	11,692	26.3	28,596	340,718	(2)	-----	82,717	23.8	38,804
February	(2)	-----	29,107	358,925	-----	-----	92,838	27.1	43,270
March	11,213	24.9	29,065	372,536	-----	-----	-----	-----	48,226
April	(2)	-----	28,477	351,679	-----	-----	-----	-----	41,519
May	-----	-----	25,206	313,104	-----	-----	-----	-----	33,484
June	-----	-----	22,736	274,942	-----	-----	-----	-----	28,093
July	-----	-----	20,869	255,179	-----	-----	-----	-----	29,250
August	-----	-----	22,431	-----	-----	-----	-----	-----	-----

Date (end of month)	Saar Ter- ritory	Sweden		Switzerland				Yugo- slavia
	Number unem- ployed registered	Trade-unionists unemployed		Unemployment funds				
		Number	Per cent	Wholly unem- ployed		Partially unem- ployed		
		Number	Per cent	Number	Per cent	Number	Per cent	Number of unem- ployed registered
1930								
January	11,307	45,636	14.2	10,523	4.4	10,710	4.4	8,508
February	11,949	45,460	13.2	9,971	4.1	11,445	4.7	9,437
March	8,882	42,278	12.5	7,882	2.6	12,642	4.2	9,739
April	7,522	38,347	11.1	5,203	2.1	12,755	5.3	12,052
May	7,362	28,112	8.3	5,356	2.2	13,129	5.4	8,704
June	6,330	28,956	8.1	5,368	1.7	17,688	5.7	6,991
July	7,095	27,170	7.8	4,751	1.9	15,112	6.2	7,236
August	7,099	28,539	8.1	5,703	2.3	19,441	7.9	6,111
September	7,527	34,963	9.8	7,792	2.5	26,111	8.3	5,973
October	9,013	43,927	12.2	7,399	3.0	23,309	9.4	6,609
November	12,110	57,070	15.3	11,666	4.7	25,793	10.5	7,219
December	15,245	86,042	22.9	21,400	6.6	33,483	10.4	9,989
1931								
January	18,921	69,437	19.8	20,551	8.3	30,977	12.5	11,903
February	20,139	66,923	18.4	20,081	7.9	30,879	12.2	14,424
March	18,292	72,944	19.3	18,991	5.4	41,880	12.4	12,029
April	18,102	64,534	17.5	10,389	4.0	27,726	10.6	11,391
May	14,886	49,807	13.2	9,174	3.5	26,058	9.9	6,929
June	15,413	45,839	12.1	12,577	3.6	34,266	9.7	4,431
July	17,685	46,180	12.4	12,200	3.3	39,000	11.3	6,672
August	20,205	48,590	12.7	9,754	3.6	-----	-----	7,466

<sup>1</sup> Sources: League of Nations—Monthly Bulletin of Statistics; International Labor Office—International Labor Review; Canada—Labor Gazette; Great Britain—Ministry of Labor Gazette; Austria—Statistische Nachrichten; Australia—Quarterly Summary of Australian Statistics; Germany—Reichsarbeitsblatt, Reichs Arbeitsmarkt Anzeiger; Switzerland—Wirt. u. Social. Mittellungen, La Vie Economique; Poland—Wiadomości Statystyczne; Norway—Statistiske Meddelelser; Netherlands—Maandschrift; Sweden—Sociala Meddelanden; Denmark—Statistiske Efterretninger; Finland—Bank of Finland Monthly Bulletin; France—Bulletin du Marché du Travail; Hungary—Magyar Statisztikai Szemle; Belgium—Revue du Travail; New Zealand—Monthly Abstract of Statistics; U. S. Department of Commerce—Commerce Reports; and U. S. Consular Reports.

<sup>2</sup> Not reported.

<sup>3</sup> Computed by Bureau of Labor Statistics from official report covering membership of unions reporting and per cent of unemployment.

<sup>4</sup> Provisional figure.

<sup>5</sup> New series of statistics showing unemployed registered by the employment exchanges. Includes not only workers wholly unemployed but also those intermittently employed.

### New Law to Improve Unemployment Situation in Canada

THE Canadian unemployment and farm relief act, 1931, which is to expire on March 1, 1932, confers certain powers upon the governor in council, in view of the serious unemployment and distress existing in many parts of the country and the partial failure of the wheat crop of western Canada, which has increased the prevailing adverse economic conditions.<sup>1</sup> This act declares that "there may be paid out of the consolidated revenue fund such moneys as the governor in council may deem expedient to expend for relieving distress, providing employment, and maintaining within the competence of Parliament, peace, order, and good government throughout Canada."

Without placing any restrictions on the generality of the terms of that part of the act just quoted and notwithstanding the provisions of any law or statute, the governor in council may—

(a) Provide for the construction, extension, or improvement of public works, buildings, undertakings, railways, highways, subways, bridges, and canals, harbors and wharves, and any other works and undertakings of any nature or kind whatsoever;

(b) Assist in defraying the cost of the production, sale, and distribution of the products of the field, farm, forest, sea, river, and mine;

(c) Assist Provinces, cities, towns, municipalities, and other bodies or associations, by loaning moneys thereto or guaranteeing repayment of moneys thereby, or in such other manner as may be deemed necessary or advisable;

(d) Take all such other measures as may be deemed necessary or advisable for carrying out the provisions of this act; \* \* \*

The law also fully empowers the governor in council to make all such orders and regulations as may be considered necessary or desirable for the relief of distress, for the provision of employment, and, within the competence of Parliament, for the maintenance of peace and order throughout the Dominion. These orders and regulations "shall have the force of law and shall be enforced in such manner and by such court officers and authorities as the governor in council may prescribe." Penalties may be imposed for the violation of such orders and regulations. The penalty, however, must not exceed a fine of \$1,000 or imprisonment for a term of more than 3 years, or both fine and imprisonment.

Within 15 days after the expiration of this law a report shall be submitted to Parliament containing a complete and correct statement of the moneys expended under the act and the purposes to which such moneys have been applied.

The Minister of Labor is the administrator of the act and the regulations thereunder. Among these regulations are the following:

The minister may enter into an agreement with the government of any Province for the payment through the Province to the municipality of such proportion of the expenditures of any municipality within the said Province for direct relief as may be agreed upon between the municipality and the Province and approved by the minister.

The minister may enter into an agreement with the government of any Province for the payment to such Province of such proportion of the expenditures of the said Province for direct relief where no municipal government exists as may be agreed upon between the said Province and the minister.

The minister may enter into an agreement with the government of any Province in which any municipality is situated for the payment through the Province to such municipality of a proportion of the cost of such municipal works and undertakings as may be carried out, pursuant to the agreement to provide work for the unemployed.

<sup>1</sup> Labor Gazette, Ottawa, August, 1931, pp. 901-904.



The minister may enter into an agreement with the government of any Province for the carrying on by such provincial government of public works, improvements, and other undertakings that will assist in providing suitable work for the unemployed, the cost of such public works and improvements to be borne by the provincial and Dominion Governments in such proportion as may be agreed upon.

It is pointed out in section 8 of the act that the relief measures under the general regulations for such act will depend to a considerable extent upon the equitable distribution of job opportunities and the payment of reasonable wage rates. In view of this fact, the Federal Government stipulates that a maximum working-day of 8 hours shall prevail on undertakings and works carried on under the provisions of the law, unless the Minister of Labor previously agrees to a modification of such requirements. Wage rates may be fixed by the provincial or municipal authorities, provided these rates be reasonable and fair and not above the rates which the Federal Government requires for the character or class of work in the district; and, if available, only materials and goods of Canadian production or manufacture may be used. Only bona fide Canadian construction firms established and operating in the Dominion before January 1, 1931, are eligible for contracts. Furthermore, a provision must be included in all agreements with provincial and municipal authorities that all persons employed on the undertakings or works referred to in the regulations shall be residents of Canada.

### Registration of Unemployed in Canada, September 1, 1931

**D**URING the summer of 1931 the provincial governments of Canada conducted surveys of the unemployment situation in their respective jurisdictions. The following table shows the number of persons registered as unemployed in various Provinces as of September 1 of this year:<sup>1</sup>

NUMBER OF UNEMPLOYED REGISTERED IN CANADA, SEPTEMBER 1, 1931, BY SEX

Province	Unemployed				
	Men		Women	Not classi- fied	Total
	Married	Single			
Prince Edward Island					1,500
Nova Scotia <sup>a</sup>					18,000
New Brunswick					7,858
Quebec <sup>a</sup>					100,000
Ontario <sup>b</sup>	71,500	58,500			130,000
Manitoba	26,486	10,248	4,755	450	41,939
Saskatchewan <sup>a</sup>					26,094
Alberta	9,220	6,230			15,450
British Columbia <sup>d</sup>			764		38,880
Total					379,721

<sup>a</sup> Figures are estimated as no registration was held.

<sup>b</sup> Ontario reports the probable number in real need of employment to be approximately 70,000.

<sup>c</sup> Including 8,237 married men, 4,851 single men, and 764 women registered in cities.

<sup>d</sup> The figures for this Province include 5,940 transients and 6,745 aliens.

<sup>1</sup> Labor Gazette, Ottawa, September, 1931, p. 1005.

### Revision of Expenditure on Unemployment Insurance and Unemployment Grants in Great Britain

ON SEPTEMBER 11, 1931, Mr. Snowden placed before the House of Commons a "white paper" containing the details of his economy budget. Its terms are given in the *Manchester Guardian* of that date, and the parts relating to unemployment insurance and grants are summarized in the *Ministry of Labor Gazette* for September, 1931. The changes in the unemployment insurance system were to become effective October 1, 1931, and were based on the assumption that for the year 1932-33 there would be an average of 3,000,000 unemployed on the live register.

#### Reduced Rates of Benefit

THE rates of weekly benefit, except for dependent children, are to be reduced by 10 per cent, calculated to the nearest 3d. (6 cents). The changes this will make are as follows:

	Present rate		New rate	
	s.	d.	s.	d.
Man.....	17	0 (\$4.14)	15	3 (\$3.71)
Woman.....	15	0 (\$3.65)	13	6 (\$3.28)
Adult dependent.....	9	0 (\$2.19)	8	0 (\$1.95)
Child dependent.....	2	0 (\$0.49)	2	0 (\$0.49)
Young man.....	14	0 (\$3.41)	12	6 (\$3.04)
Young woman.....	12	0 (\$2.92)	10	9 (\$2.62)
Boy, aged 17.....	9	0 (\$2.19)	8	0 (\$1.95)
Girl, aged 17.....	7	6 (\$1.83)	6	9 (\$1.64)
Boy, aged 16.....	6	0 (\$1.46)	5	6 (\$1.34)
Girl, aged 16.....	5	0 (\$1.22)	4	6 (\$1.10)

It is estimated that the saving from this change will amount to £12,800,000 (\$62,291,200) for the year.

#### Increase in Contributions

EMPLOYERS, employed workers, and the Government are to continue to contribute equally on behalf of each employed worker, but the rate of weekly contribution from each is increased to the following amounts: Men, 10d. (20 cents); women and young men, 9d. (18 cents); young women, 8d. (16 cents); boys, 5d. (10 cents); girls, 4½d. (9 cents).

#### Limitation of Benefit Period

It is proposed to make a sharp cleavage between insurance benefits and transitional benefits. The former are limited to 26 weeks in one year, after which the applicant will have to qualify by a period of contributions before he can again draw insurance benefits. If he is unable to secure employment and make the contributions, he may apply for transitional benefits; that is, he may still be eligible for benefits but will be transferred to the transitional class.

#### Needs Test for Transitional Payments

It is proposed to apply a needs test to those whose insurance rights have expired, i. e., to persons now drawing transitional benefit, and to those coming on to transitional payments in future, including those who do so because they

have reached the 26 weeks' limit of insurance benefit. They may, however, continue to receive assistance in cash up to the same rates as under the insurance scheme if they show that they are in need of it. The procedure contemplated is that, when unemployed persons come to the end of their insurance benefit and desire to claim further payment, they will attend at the unemployment exchange to prove unemployment and satisfaction of other conditions, as at present. The exchange will then request the public assistance authority to assess their need and to determine the amount payable (not exceeding the ordinary benefit), and such determination will be final. The amount so determined will be paid by the employment exchange, and the payment will be charged on the exchequer.

It is estimated that between the reluctance of people to submit to the investigation of the public assistance authorities and the stricter standards by which they will measure need, approximately £10,000,000 (\$48,665,000) will be saved by this change.

### Cessation of Borrowings

THERE is to be no borrowing on behalf of the fund beyond the present statutory limit. Whatever amount hereafter may be necessary to balance the accounts of the unemployment fund is to be furnished in the form of grants from current revenue. The estimated amount of this grant for the year 1932-33 is £22,200,000 (\$108,036,300).

### Estimated Savings

IF THE scheme had continued to be administered according to the methods in force at the time the "white paper" was presented, with an average live register of 3,000,000 unemployed during the year 1932-33, the expenditure would have been:

Benefit at existing rates.....	£130,500,000	(\$635,078,250)
Interest on debt of £115,000,000.....	5,700,000	(27,739,050)
Administration.....	7,100,000	(34,552,150)
Total.....	143,300,000	(697,369,450)

Toward this amount employers and employed persons would have contributed £28,500,000 (\$138,675,250), leaving a sum of £114,800,000 (\$558,674,200) to be provided by the exchequer.

The savings to be effected under the new plan, including those from the removal of anomalies under the act of 1931, will reduce this sum by the following amounts:

Removal of anomalies under act of 1931.....	£3,000,000	(\$14,599,500)
Needs test of transitional payments.....	10,000,000	(48,665,000)
Reduction in rates of benefit.....	12,800,000	(62,291,200)
Total.....	25,800,000	(125,555,700)

In addition, the increase in the contributions of the employers and employed persons will amount to £10,000,000 (\$48,665,000), leaving as a charge on the exchequer, after economies, £79,000,000 (\$384,453,500). This will be made up of the Government's contributions for each employed worker, amounting to £19,300,000 (\$93,923,450); grant required to balance the fund for the year, £22,200,000 (\$108,036,300), and transitional payments, £37,500,000 (\$182,493,750).

The difference between this £79,000,000 and the £114,800,000 which the Government would have expected to provide under the old system is £35,800,000 (\$174,220,700), which represents the saving to the exchequer under the new plan.



### Policy in Regard to Unemployment Grants

THESE grants have been made by the General Government on the recommendation of the unemployment grants committee, to help local authorities carry through schemes which they would otherwise have felt unable to undertake, but which are desirable in themselves and which would aid in reducing unemployment. It has been decided that in general no grants shall be made in respect of applications received later than June 30, 1931, though in exceptional cases, applications of a later date, provided the work is to begin before December 31, 1931, may be entertained.

There are at present approximately 1,000 applications outstanding, of an estimated value of about £14,000,000 [\$68,131,000]. The rates of grant are being reduced, and, except in regard to schemes for which a grant has already been definitely promised, the revised rates will in no case exceed 25 per cent of the cost of the scheme. It is anticipated on this basis that only schemes of the highest economic value will be proceeded with. No further grants will be recommended by the committee for road or bridge improvement schemes.

The estimated saving to the exchequer under this head during the financial year 1932-33 is £500,000 [\$2,433,250].

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### English Unemployment Insurance "Anomalies" Act

**B**EFORE adjourning in August, the English Parliament passed the so-called "anomalies act," dealing with some of the conditions which the royal commission in its preliminary report had preferred to call anomalies rather than abuses. (See Labor Review, August, 1931, p. 23.) The principal purpose of the act, as summarized in the Ministry of Labor Gazette for August, 1931, is to make it possible to prevent these anomalies without interfering with the proper working of the scheme.

The anomalies in question affect four classes of workers, viz: (1) Persons who habitually work less than a full week, but by the practice of the trade receive earnings or similar payments of an amount greater than the normal full week's earnings in the same occupation and district; (2) seasonal workers; (3) persons who normally work not more than two days a week, either because their occupation is one in which their services are not normally required for more than two days, or because of personal circumstances; and (4) married women who have had less insurable employment since marriage, or in any prescribed period subsequent to marriage, than may be prescribed by regulations. The act directs the Minister of Labor, after consultation with an advisory committee constituted for the purpose and containing representatives of employers and of workers, to make regulations applying special provisions to the classes in question.

The advisory committee is to consist of a chairman and eight members, three of whom are to be appointed after consultation with the Trades Union Congress, and three after consultation with the National Federation of Employers' Organizations, while one is to represent especially the Treasury.

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### English Study of Persons Disallowed Unemployment Benefit

**A**S PART of the recent study of the English unemployment insurance system made by the royal commission (see Labor Review, August, 1931, p. 20), an inquiry was undertaken into the

subsequent circumstances of persons whose claims for unemployment benefit were disallowed. To what extent did they apply for outdoor relief? If they did not so apply, how did they obtain support? The results of this study have recently been published as an appendix to the minutes of evidence given before the royal commission.

The inquiry was made in London, Southampton, and eight northern industrial districts, and related only to those disqualified on one of the five grounds following:

(1) Failure to satisfy the qualifying contribution conditions for ordinary or transitional benefit; (2) failure to satisfy the condition for transitional benefit, that the claimant is normally insurable and will normally seek to obtain a livelihood by means of insurable employment (transitional condition (b)); (3) leaving employment voluntarily without just cause; (4) discharge for misconduct; (5) failure or refusal to apply for or accept suitable employment.

These five causes usually account for about four-fifths of the total disallowances. Of a total of 8,558 disallowances on these grounds between February 2 and March 31, 1931, in the districts covered, 2,354 were taken for study. These were divided as follows: Men, 1,120; women, 1,072; juveniles, 162. The study was made in April, so that "the period of time investigated varied between 1 and 13 or more weeks after disallowance, and in as many as four-fifths of the cases the period was at least six weeks."

The following table shows the proportion of the persons in the sample studied who were disallowed on each of the five grounds specified above:

TABLE 1.—PERCENTAGES OF DISALLOWANCES FOR EACH CAUSE, BY SEX OF CLAIMANT

Ground of disallowance	Men	Married women	Single women and widows	Juveniles	Total
Contributions condition not satisfied.....	4.1	0.8	1.0	21.6	3.9
Transitional condition (b) not satisfied.....	58.0	67.8	29.0	-----	49.0
Leaving voluntarily.....	18.0	18.0	30.5	34.6	22.2
Misconduct.....	16.4	1.4	8.6	31.5	12.3
Failure or refusal to apply for or accept suitable employment.....	3.5	12.0	30.9	12.3	12.6
Total.....	100.0	100.0	100.0	100.0	100.0

It will be seen that insufficiency of contributions and failure to satisfy transitional condition (b) account for over half of the disallowances, and that the proportion refused on the second ground is especially heavy among the men and the married women. It is explained that the wording of the second cause may easily give a misleading impression.

Their value as a class of workers may, and indeed, must be below the average, but neither the transitional beneficiaries as a class nor all those among them who fail to satisfy the "not normally" test are at the bottom of the scale of industrial eligibility. Some are men between 18 and 25 who have simply had no chance of continuous spells of insured work. An unexpectedly large proportion are young and virile workers. Others are persons of all ages who have worked on their own account or in an excepted occupation (as cleaners or servants in private employ or as gardeners).

## Means of Subsistence Used by the Disallowed

THE various means of support found by the disallowed are shown in the following table, with the proportion of those who had recourse to each. There was considerable overlapping, as one person might, during the period covered, have made use of more than one means.

TABLE 2.—PERCENTAGE WITH VARIOUS MEANS OF SUPPORT DURING PERIOD OF DISALLOWANCE

Means of support	Single men	Married and widowed men	Total men	Single and widowed women	Married women	Total women	Juveniles	Total
Employment.....	33.1	30.3	31.8	43.9	18.7	32.1	47.5	33.0
Poor relief.....	13.1	52.2	31.9	3.5	4.4	3.9	1.9	17.0
Other sources:								
Wife in work.....		4.3	2.1					1.0
Husband in work.....					62.7	30.0		13.8
Wife in benefit.....		.8	.4					.2
Husband in benefit.....					20.5	9.8		4.5
Relations.....	65.7	21.6	44.3	75.6	5.7	42.1	94.9	46.8
Pensions.....	2.8	4.1	3.4	1.7	1.0	1.4		2.2
Private means.....	4.8	9.0	6.8	3.9	1.2	2.6		4.4
Other means.....	8.1	8.4	8.2	5.4	3.6	4.6		6.0

On the average, practically one person in each three found some work during the period covered; some of them had secured more than one job, but the jobs were in many cases of short duration.

In the main, the work obtained was low skilled or unskilled, which would widen the range of opportunity. What the figures for the men suggest as much as anything is that, in the scramble for a miscellaneous collection of low-grade jobs, which goes on continually in the large towns, particularly in distributive centers, the disallowed persons get their fair share of work with the rest of the unemployed.

Only about one in six applied for poor relief, but the proportion varied widely in the different groups. Naturally, it is greatest among the married men, whose responsibilities are greater than those of any other class, and who seem to have a poorer chance of securing employment than any others, except the married women. About three-quarters of all who resorted to relief received it for only a part of their period of disallowance. A study of the different districts seemed to show that the degree of poverty, rather than the strictness or laxness of the public assistance authorities, determined the extent to which recourse would be had to public aid. "Where all are poor there are no reserves to fall back upon, and relations can not help." Very generally there was a dread of having to apply for public aid.

Out relief to-day carries no legal stigma, but none the less the investigators found in the course of their home visits many cases in which privation amounting to destitution was being endured rather than apply to the relieving officer. Indeed, it is one of the lessons of this inquiry that, in the minds of the people, there is still a sharp distinction between the other social services, whether contributory or not, and the poor law, which is the oldest and most basic of those services. The century-old dislike still lingers, even though, in the light of modern conditions, it is unfounded.

The investigators were struck by the extent to which help from relatives and friends came into play. That husbands and wives should depend on each other and juveniles should be looked after by their families would be expected, but it was not anticipated that nearly two-thirds of the single men and three-fourths of the single



women should have received such aid. In many cases the help given involved real hardship for the giver. Often the aid came from the earnings of a casual worker or from the benefit drawn by some other member of the family, which means, of course, that the hardship was not so much relieved as shared by a larger circle. And relatives were not the only ones who helped.

Nor were the financial sacrifices by any means confined to the family circle. Even landlords were reported as having come to the rescue; for example, in Glasgow 12 persons were being fed and housed free in this manner. It seems indeed that the reluctance to be associated with poor law affects more than the individual concerned and others than those who are legally liable for his support. It is felt by the whole circle of which he is a member. Undoubtedly it is this vicarious sense of pride or self-respect which induced many relatives and friends to give support to disallowed persons in their time of need.

"Other means" covered a variety of resources. Some had fixed pensions or other income; national health insurance benefits during sickness, and trade-union allowances of various kinds proved a valuable help to men and women alike. In some cases there were savings which were used.

The one factor which might have been expected to be more prominent is private charity. It is, however, noticeable that the investigators came across little evidence of such help.

There is good ground for believing, the report holds, that the conditions shown by this inquiry are fairly typical, and as such, it has both dark and bright sides. A considerable number were able to get some work during the period covered, there were some savings, in spite of the long-continued depression, and in some cases the income of the family was large enough for the loss of benefit not to affect their standard of comfort. The suffering can not, however, be denied.

Half the married men in the sample fell into destitution and, generally, the other half only subsisted under grave economic difficulties. Relations and friends were a standby for all classes in the sample, but in that case the trouble was not always banished; it was only spread. Others than the disallowed persons had to make sacrifices and many were encumbered with arrears of rent and debts. In spite of efforts regular employment either in industry or on relief works was usually unobtainable.

The salient feature, however, of the report is that a large number, even a majority of the persons who, though unemployed, fell through the meshes of the benefit net, still managed to find a living without recourse to any kind of public provision.

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### Unemployment Relief Work in New Zealand

THE report of the New Zealand Department of Labor for the year ending March 31, 1931, contains a brief account of work done under the act of 1930 for the prevention and relief of unemployment. (See Labor Review, February, 1931, p. 85.) Under the terms of this act an unemployment board was created in November, whose special function is to provide employment and to give relief only when it is impossible to furnish work. The board was given wide powers in the matter of promoting primary and secondary industries, giving vocational or other training needed to fit the unemployed for work which might be provided, cooperating with public authorities and private individuals to encourage useful undertakings which would furnish employment, and the like. For its use an unem-

ployment fund was to be raised by means of a tax on all males 20 years old and upward, and by an annual contribution from the Government equal to one-half the year's expenditure from the fund.

The immediate effect of this law was to bring into the open the amount of unemployment prevailing. On September 22, 1930, the total number registered as unemployed at the department's employment offices throughout New Zealand was 6,099. After the passage of the act the number increased rapidly until on March 30, 1931, there were 38,028 applicants on the registers.

During the year 30,223 men were placed in employment, 12,586 on Government works, 9,245 with local bodies (of whom 3,428 were given employment at Christmas time under the unemployment board's No. 3 scheme), 7,320 in private employment, and 1,072 on temporary work immediately following the Hawke's Bay earthquake. In addition, 365 persons were assisted by advances of railway fares, while 421 received a cash payment equal to the value of two days' work, there being no opportunity of affording them employment under No. 3 scheme, already referred to. There were 68,449 persons dependent on the workers assisted to employment. (Figures for the previous year were: 14,537, Government works; 4,319, local bodies; 3,034, private employment—total, 21,890; dependents, 40,086). Of the 38,028 applicants on March 30, 1931, 24,941 were working under the unemployment board's scheme No. 5, which provides for three weeks' (out of every four weeks) temporary employment up to four days each week, according to each man's circumstances. The men so employed are not regarded as "placements," and are not therefore included in the figure 30,223.

Unemployment has never before reached such proportions in New Zealand, the report states. The increase in the number of men registered is no doubt partly attributable to the fact that the unemployed now consider that it is worth while to do so, but the main reason, it is held, "can be found only in the financial and economic condition of the country."

The act does not include women in the scope of its benefits, so that the figures given above relate only to men.

# SOCIAL INSURANCE AND BENEFIT PLANS

## Work of Employees' Mutual Benefit Associations

THE National Conference on Mutual Benefit Associations, which was organized in the spring of 1928 by representatives of industrial and business establishments throughout the country, has recently conducted a study<sup>1</sup> of the activities of these associations, the results of which have been tabulated and analyzed by the United States Public Health Service. The information was collected through questionnaires sent to 1,500 firms which were thought to have employees' organizations for sickness insurance. Replies were received from 602 companies. Of these, 223 stated that they had no form of mutual benefit association; 27 reported that the association had been discontinued; 23, that there had never been an association but that sickness insurance was now being purchased by these firms from life insurance companies; and 14, that they had relief departments or sick-benefit plans operated and financed entirely by the company. The information furnished by the remaining 315, therefore, formed the basis for this report.

The possibilities in the mutual benefit association for usefulness in the field of preventive medicine has been realized to a certain extent in recent years and the primary purpose of the study, therefore, was to ascertain how much has been done for members beyond the simple payment of cost benefits in case of sickness.

Mutual benefit associations are not new. The average age of 312 associations was 21 years, while 2 per cent of them were established more than 50 years ago. The largest number in any one group was found in the 10 to 14 year old group. It is evident, therefore, that benefit associations have had a sufficiently long experience to have passed the experimental stage.

The scale of benefits paid by the associations ranged from less than \$3 per week to \$25 and over, while several paid a fraction of the wages ranging from one-half to full pay, only two associations, however, paying the latter amount. Many associations have more than one class of benefit, and the rate of payment to female members is frequently less than that paid to males. About one-fourth of the benefit classes in the different funds paid less than \$7 per week; approximately one-half, from \$7 to \$13; and the remainder, more than \$13 per week. Benefits of \$9 to \$11 per week were more frequent than any other amounts. Few of the associations considered the cash benefits adequate when they were less than \$5 per week, but a majority of those in the different benefit classes paying from \$5 to \$13 per week stated that the benefits appeared to be sufficient. However, of those replying to the questionnaire and giving their title or position, about 67 per cent appeared to belong to the execu-

<sup>1</sup> United States Public Health Service. Public Health Reports, September 4, 1931. A survey of the work of employees' mutual benefit associations, by Dean K. Brundage.



tive branch of the company, so that these opinions in general represent those of company officers rather than those of the wage earners.

The benefit periods also vary widely, ranging from 5 weeks to 2 years for those reporting the maximum period for which benefits are paid. The report states that from the wide amount of variation in the plans it appears that the establishments in working out their systems for sickness relief exercised too much individualism and that a moderate amount of standardization might be advantageous from several points of view.

#### Suggested Changes in Benefit Scales

WHILE a majority of those reporting did not favor a change in the scale of benefits it appeared from the comments on this point that a fairly wide difference between the benefit scale and the wage scale was desirable in order to prevent malingering. It was regarded as somewhat surprising, in view of the importance apparently attached to the question of malingering, that only two companies suggested the advisability of payment of part of the cost of hospitalization without changing the weekly rate of cash benefits.

The principal changes in benefits proposed related to the amount under a single scale of dues and benefits, the amount in proportion to wages either as a definite percentage or in classes according to wages, the maximum period for which benefits may be paid, and the size of the death benefit.

In regard to the first point, an increase in benefits to about \$12 was favored by the largest number although almost as many companies suggested an increase to \$8 or \$10 per week, while a much smaller number advocated payment of \$15 to \$20 per week.

Many of the companies were in favor of paying benefits in proportion to wages, either as a definite percentage of the wage or according to a classification corresponding to the principal wage groups. Benefits amounting to two-thirds of wages were favored by several companies, and others which preferred benefit classes to a specified proportion of wages proposed scales extending from \$6 or \$8 to \$20 or \$24 per week.

Two companies considered a reduction desirable in the maximum period for which benefits are payable, the reductions suggested being from 14 to 8 weeks and from 26 to 13 weeks. Four companies were in favor of increasing the period but did not recommend any definite period. As certain cases will always extend beyond the limit of the benefit period no matter what it is, one establishment thought that special provision should be made for certain long illnesses such as tuberculosis, cancer, and major operations.

Four companies believed that the death benefit should be abolished but without giving a reason for this belief. Another company, however, recommended that a fixed sum should be established for burial costs, as it appeared that there is too large a proportion of the death benefit spent for burial purposes. Opinions as to the proper amount for the death benefit varied, suggested amounts ranging from \$50 to \$2,000. Two companies regarded the amount of their death benefit as too large. In one of these cases it amounted in case of a nonindustrial accident to two-thirds of the annual wages, and in the other the

benefit payable to the widow of a member amounted to 30 per cent of wages payable annually until her death or remarriage.

#### Opinions as to Effectiveness of Associations in Improving Employees' Health

FIVE per cent of the companies replied to the inquiry regarding any improvement in employees' health which could be ascribed to the mutual benefit association that the association was not organized for health improvement. It was the opinion of 32 per cent of the total number of 227 replying to this question that there had been no improvement or important health results, while 20 per cent stated that there were no data available by which improvement could be measured. Ninety-seven firms, or the remaining 43 per cent, thought that the work of the association had been instrumental in improving health conditions. This belief was based on the fact that the benefit society afforded the opportunity for obtaining early diagnosis and treatment, especially through physical examinations which disclosed defects or pathological conditions which the society in many instances assisted the individual to correct, and also by the feeling of security produced by membership in the association so that members delayed returning to work until more completely restored to health than would otherwise have been the case.

A smaller proportion of the companies thought that absences on account of illness had been reduced as a result of the work of the benefit association. Two companies, on the other hand, reported an increase in absenteeism due to sickness. In companies which found there had been a reduction in absences it was ascribed to the provision of proper medical attention and care, or to a reduction in the unnecessary absences and in malingering through the work of visiting nurses or investigators.

The improvement of the health of the members was not regarded as a function of the society by six reporting funds, but 118 offered suggestions for increasing its effectiveness in this regard. Among the suggestions were included the provision of periodic health examinations and institution of a program of health education, including lectures and periodic bulletins. Several thought that dues should be increased to cover necessary surgical operations and dental, optical, and other corrective services. It was also suggested that the associations might adopt a more liberal policy except with malingerers, and might improve supervision in order to insure adequate medical care.

In summing up the results of the study it is stated that there is some evidence that in recent years there has been a tendency to develop new fields of usefulness for the members of the association, such as securing for them better surgical and medical care, and the institution of preventive measures. However, only a small fraction of the benefit associations are making any attempt to improve health conditions among their members. They are still in the main insurance organizations, and as such, it is said, seldom err on the side of over-insurance. Practically no attempt has yet been made to insure against the uneven costs of treatment of different diseases, and ordinarily a serious surgical case, or one requiring radium treatment, for example, receives no larger cash benefits than other cases which involve the same loss of time. If, however, insurance was adjusted

to the uneven costs of treating different diseases, the report states, the fear of malingering would be dispelled. Approximately half of the industrial sick benefit associations covered in the report were purely employee organizations, about 37 per cent of these funds receiving no assistance from the company, while an additional 13 per cent receive assistance only when the fund is in financial difficulties. In view of the potentialities of the associations for the improvement of the physical conditions of the workers, the writer says that it would seem that such companies might find it to their advantage to substitute active support of the work of the association for a policy of mere passive recognition.

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### Widows', Orphans', and Old Age Contributory Pensions Act (England), 1931

**T**HIS act, which received the royal assent and became law on June 11, 1931, amends the act of 1929 in two respects. Its terms are summarized in the Ministry of Labor Gazette for August, 1931.

The act of 1929 followed the original act of 1925 in providing a normal occupation test as an alternative or substitution for the insurance tests in its application to the widows of men who died before January 4, 1926. According to this, a person who had a normal occupation of insurable employment immediately before becoming incapacitated was regarded as retaining that occupation so long as the incapacity continued. This view was challenged, and when it was brought before the High Court for decision, the court held that "normal occupation did not necessarily persist throughout incapacity."

The effect of this decision would be to deny pensions to a great number of widows who were intended to benefit, and subsection (1) (a) of section 1 of the new act has therefore been inserted to give effect to the original intention. In view of some doubt genuine unemployment has been included, in order to make certain that the normal occupation test can be satisfied in the case of a man who, though genuinely seeking work, failed to obtain it throughout the last three years of his life.

It is thought that the number of widows at present between the ages of 55 and 70 who are affected by this amendment does not exceed 10,000.

The second change affects widows of men aged 70 or over in 1912. In that year the national health insurance act came into force and applied only to persons under 70. Under the act of 1929 certain conditions as to the award of a pension to a widow made it necessary that the husband should have been an insured person. Claims have been made by widows whose husbands were over 70 when the health insurance act came into force, and who, consequently, could not be insured. A paragraph of the new act is designed to provide pensions for such widows, subject to the satisfaction of a normal occupation test.

Under this paragraph widows will become entitled to pensions whose husbands attained the age of 70 on or before July 15, 1912, and died on or after January 4, 1926, and whose normal occupation at some time within three years before the date on which they attained the said age, was employment which would have been insurable if the health insurance acts had then been in force.

It is estimated that about 750 widows will become eligible for pensions under this amendment.



# INDUSTRIAL AND LABOR CONDITIONS OLD-AGE PENSIONS

## Operation of Old-Age Pensions in New York State

SINCE the going into effect of the New York old-age assistance law, on January 1, 1931, the New York State Department of Social Welfare has been furnishing reports to the Bureau of Labor Statistics showing the progress of the pension plan in that State.

The data supplied show that at the end of the first month's operation more than 20,000 old people had been granted pensions. Since that time a constant increase in the number has taken place, the number exceeding 43,000 at the end of September. The rapidity of the increase is explained by the New York office as being, to some extent, due to the prevailing economic depression with its resultant unemployment, so that in many cases children who would otherwise be able to support their dependent parents are at present unable to do so.

No data are available as to the amount spent in relief during the first three months of 1931, but during the six months, April to September, the sum of \$6,290,015 was disbursed.

The average pension in New York is \$26.65 per month. This is the highest average reported for any State. The inquiry made by the bureau early in 1931 showed that the highest averages at the end of 1930 were \$25 in Nevada and \$22.56 in California.

The details for New York, by months, are given in the following table:

NUMBER OF PENSIONERS ON ROLL AND AMOUNT SPENT IN OLD-AGE RELIEF IN NEW YORK EACH MONTH, JANUARY TO SEPTEMBER, 1931

Month	Number of pensioners				Amount spent in relief
	New York City	Other cities	Counties	Total	
January.....	11,089	1,114	8,010	20,213	(1)
February.....	12,855	1,859	10,904	25,618	(1)
March.....	14,242	2,060	12,641	28,943	(1)
April.....	15,878	2,129	14,316	32,323	\$888,247
May.....	18,316	2,499	15,683	36,498	997,402
June.....	19,568	2,711	16,121	38,400	1,044,958
July.....	20,151	2,893	17,495	40,539	1,088,301
August.....	20,706	3,038	18,277	42,021	1,119,674
September.....	21,194	3,171	18,841	43,206	1,151,433
Average grant.....	\$32.37	\$22.56	\$20.90	\$26.65	-----

<sup>1</sup> No data.

# INDUSTRIAL AND LABOR CONDITIONS

## China's 10-Year Plan

A TEN-YEAR program<sup>1</sup> has been drawn up by the Chinese Ministry of Industries with the purpose of converting China into one of the great industrial countries of the world. The plan as presented to the Government for approval is very detailed. The following important enterprises are contemplated: (1) The building of harbors, canals, railroads, etc.; (2) the opening up of the vast area of undeveloped land in the northwest and the general improvement of the agricultural and pastoral industries; (3) the development of mines and quarries; (4) the erection of smelting works and mills for metallurgical industries; (5) the production of iron and steel; (6) the manufacture of bricks, cement, and other building materials; (7) the building of locomotives and other rolling stock; (8) the building of merchant ships and fishing vessels; (9) the manufacture of vehicles of all types; (10) the promotion of the coal-tar industry; (11) the establishment of works for making basic chemicals; (12) the development of hydro-electric schemes and the establishment of central power stations; (13) the manufacture of electrical machinery; and (14) the establishment of municipal waterworks undertakings.

The above projects being national in character and scope, it is considered advisable for them to be carried out directly by the Government or under its immediate supervision.

The execution of a program of such magnitude will, of course, require a tremendous supply of machinery and appliances. The basic problem, therefore, is to provide the mechanical means for carrying out the plan. The expenditure for machinery called for in connection with these various undertakings is estimated at \$1,120,000,000 (United States currency \$239,680,000)<sup>2</sup> per annum for the 10 years.

The next question is how to meet this tremendous demand for machinery, and to this end the establishment of machine shops is urgently necessary. There are many such shops already established in China, but they are small in size and poorly equipped, and unable to expand and improve along modern lines. If a billion dollars [Chinese] is to be spent annually upon machinery, the plant must be provided capable of supplying that demand; therefore, the Ministry of Industries suggests the establishment in Nanking of a central works for machine construction—a model plant where mechanics could be trained under foreign supervision. In course of time men so trained in the Government workshops would become available to carry on the subsequent expansion of China's engineering industries, and take the lead in organizing and conducting new enterprises of this character. The Government workshops would establish a standard of efficiency for other plants to follow, and would also carry on experimental and research work for the benefit of the industry as a whole. The products which appear to be most needed and offer the best prospects of profitable development are steam engines, boilers, and accessories, Diesel units for ships, merchant ships and fishing craft, refrigerators, machine tools, machinery and plant for road making and constructional work, commercial castings, tools, and gages.

The 10-year program also provides for sending a number of experts to England to study factory organization methods, so they may be

<sup>1</sup> China. Ministry of Industries. *The Chinese Economic Bulletin*, Shanghai, June 27, 1931, pp. 326-330.

<sup>2</sup> Conversions into United States currency on basis of Yuan dollar at par=21.4 cents.

able to work out the most efficient methods to apply to the Nanking project. These Chinese experts will also supervise the construction of the machinery, to be ordered from British manufacturers, and will recruit experienced foremen in England for workshops and departments in China for which expert Chinese supervision is not at present available.

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### The British Coal Mines Act, 1930, in Operation

THE Mines Department of Great Britain has recently published a pamphlet describing the working during the first quarter of 1931 of the coal mines act passed in August, 1930, in the hope of remedying the chaotic conditions in the industry. (See Labor Review, October, 1930, p. 108.) Under its terms the coal fields were divided into districts, each of which should have a district executive board, elected by the mine owners, to work in cooperation with a central council composed of representatives of all the coal-mines owners of Great Britain. The central council, in consultation with the district bodies, is to decide from time to time upon the amount of coal which is likely to be needed by the nation for a reasonable period ahead, and is then to assign to each district the proportion of this amount which it may produce within the time set. The district board is then to allot to each mine or undertaking in its district its share of this output. The central council has power also to approve a minimum price for each kind of coal, a function hedged about with provisions intended to safeguard the consumer. The plan was to go into operation in November, 1930, but the work of determining the quantity which might fairly be allotted to each mine was slow and difficult, and it was not until the beginning of 1931 that the act became really effective.

#### Regulation of Output

THE act provided that the amount assigned to each mine must be based on a so-called "standard tonnage," the output allowed being calculated as a percentage of this.

The standard tonnage for each mine will be fixed with regard to the special circumstances of the mine, including the efficiency and economy of the working of the mine, the extent to which it has been developed or is being developed for economic working and the extent to which its output has been increasing or decreasing. In the first determination of standard tonnage it also has to be fixed in relation to the output of the mine during some recent period when voluntary regulation of output was not in force.

In determining the allocation the central council decided upon an output 10 per cent less than that of the first quarter of 1930, a period when demand was higher than usual. The following table shows for the different coal fields the amount (in tons) allocated and the actual output, as reported by the district boards:



## OUTPUT COMPARED WITH ALLOCATION (IN TONS) IN EACH DISTRICT, JANUARY TO MARCH 31, 1931

District	Amount allocated by central council	Output as returned by district boards
<i>Allocation below or slightly above output</i>		
Northumberland.....	3,369,150	3,397,100
Lanes and Cheshire.....	3,933,900	3,934,500
Warwick.....	1,190,950	1,195,500
Cannock Chase.....	1,300,190	1,301,100
Midland Amalgamated.....	19,056,060	19,078,200
Scotland.....	7,937,010	7,726,700
North Staffs.....	1,521,810	1,509,700
North Wales.....	882,740	848,100
South Staff.....	431,930	391,400
Kent.....	400,000	392,000
Forest of Dean.....	344,610	319,600
Somerset.....	232,430	228,600
Shropshire.....	166,820	165,700
<i>Allocation considerably above output</i>		
Cumberland.....	599,160	528,800
Bristol.....	52,180	39,800
Durham.....	9,306,810	8,542,000
South Wales.....	11,859,840	8,779,000
Great Britain.....	62,585,590	58,377,800
Great Britain (less South Wales).....	50,725,750	49,598,800

When the basis of the allocation had been announced there was much complaint that the council was unduly restricting the output of coal, to the detriment of the consumer and the country as a whole. The above table, however, shows that 12 districts did not produce even as much as was allotted to them, and that, taking Great Britain as a whole, the allocation exceeded output by something over 4,000,000 tons. The greatest deficiency, that in South Wales, was due in part to a strike which tied up the mines completely during a part of January but if, in recognition of this, South Wales be omitted, the allocation for the rest of Great Britain exceeded the actual output by over 1,000,000 tons. This, the department holds, shows that there was no undue restriction of output, and no shortage of coal as a result of the limitations imposed.

There was some complaint of a lack of elasticity in the regulation of output, but it is doubtful whether this was justified. In the Midland Amalgamated District the output during the first two months was so great that the small balance available for March would necessitate extensive short-time working, and the district board applied to the central body for an increase in their allocation.

But their application was resisted by a number of other districts, which alleged that the Midland coal owners had, in January and February, adopted a policy of price cutting, and had by this means secured business at the expense of other districts. The application for an increased allocation was thereupon refused by the council. The Midland Amalgamated District exercised their right of reference to arbitration under the provisions of the central scheme, but the three independent arbitrators declined to vary the council's decision. There followed an immediate cry of a shortage of coal. Complaints were lodged by the coal merchants' federation and the trawler owners with the national committee of investigation set up under section 5 of the act. That committee, after investigating the complaints, decided not to make any recommendation in the matter.

While a shortage of certain classes of coal from the Midlands did exist during March and early April, it was not the case that there was a national shortage of coal. There were ample supplies available in other districts to make good any deficiency of Midland coal.

In one case a small coal field which was dissatisfied with the amount allotted to it carried the matter to arbitration, receiving an increased allotment, and in another instance, the central council increased an allotment under similar circumstances, which, the department feels, shows that the scheme provides sufficient elasticity where there is a valid reason for changing the original allocation.

In any district a coal owner who does not care to produce the full amount allotted to him may transfer to other owners all or part of his quota. This privilege was used freely, and helped to make the regulation of output more elastic within the various districts.

### Employment

THE total number of men employed decreased during the quarter by 12,600. As there had been a total decrease of 61,000 during 1930, owing to trade depression, and as the total output of coal during the quarter did not reach the amount permitted, it is concluded that the fall in employment is due to the general trade situation and not to the effect of the act.

The average number of days worked per week was 4.82, as against 5.13 for the corresponding quarter of 1930

The decrease is in part due to the stoppage in South Wales during the early part of the year, and in part to the introduction of the "spread-over" system for meeting the reduction of hours in Scotland, which meant that those pits which had previously worked a 12-day fortnight worked only 11 days.

### Price Regulation

THE price-fixing regulations for various reasons did not work out as satisfactorily as the control of output. Each district was to fix its own minimum price. There were delays and a lack of coordination among the various districts, which led to such difficulties that the central council appointed a committee to consider the relationship between various minimum prices, and several of the districts commenced negotiations with regard to the adoption of a common basis for minimum prices.

### Summary of Results

REGULATION of output has been operative since January 1, 1931, under the schemes in force under Part I of the coal mines act, 1930. On the whole it has proceeded satisfactorily. On the other hand, the determination of minimum prices was not completed in the majority of districts during the first quarter of the year. But there were indications at the beginning of the second quarter that the various districts were attempting, on a coordinated basis, to introduce schedules of minimum prices. On the whole, it is too early to speak of the effects of the schemes on the coal industry. With regard to the administration of the schemes, apart from difficulties which are bound to occur in the early stages of legislation of a novel character, it can be said that no major difficulties were encountered, and there was every sign that the majority of coal owners were making an attempt to work the act in the best possible manner.

### Continuance of Miners' Welfare Fund, Great Britain

**I**N ITS issue for August, 1931, the Ministry of Labor Gazette reports that the mining industry (welfare fund) act received the royal assent on July 8th, thereby becoming law.

Under section 20 of the mining industry act, 1920, a fund was constituted for five years known as the Miners' Welfare Fund, from which allocations are made for such purposes as miners' institutes and libraries, recreation and sports grounds, pithead baths, hospitals and convalescent homes, education and research, scholarships, and other objects connected with the social well-being, recreation, and conditions of living of workers in or about coal mines. The fund is derived from a levy of 1 penny per ton on all coal raised, and since 1926 has been supplemented by a permanent levy on royalties imposed by the mining industry act of that year.

In 1925 the output levy was continued for a second period of five years, but, in the absence of amending legislation, it would have ceased to be payable after this year. The present act extends by a further five years the period during which payments are to be made to the fund by coal owners.

It is also stated that the secretary for mines announced on July 7 that a committee had been appointed to inquire into the general condition of the fund, and to report whether its scope and the machinery for its administration are satisfactory, and particularly to deal with the question of the amount and duration of the levy in the future.

The fund also came under consideration at the annual conference of the Miners' Federation of Great Britain, which was held in Blackpool, beginning July 20. As a result, it was decided to petition the Government to make the fund a permanent institution, since under the present terminable act there was always hesitation to enter upon new schemes for the promotion of miners' welfare. Also, it was decided to urge the Government to allow the income, or part of the income, of the fund to be used toward establishing a pension fund for aged miners.



# LABOR LAWS AND COURT DECISIONS

## Proposed Uniform Mechanics' Lien Act

THE National Conference of Commissioners on Uniform State Laws assembled at Atlantic City, N. J., on September 10, 1931, and approved a uniform mechanics' lien act.<sup>1</sup>

The new draft of the proposed uniform law on the subject of mechanics' liens was the result of five years study by a committee appointed by the Commissioners on Uniform State Laws in conjunction with a similar committee of the Department of Commerce, appointed by President Hoover, then Secretary of Commerce, in 1925.

The uniform mechanics' lien act is to be held in abeyance for a period of one year, and then promulgated in 1932, with an attempt to secure its uniform adoption by the legislatures of the States and the District of Columbia.

The adoption of the uniform law, it was reported, was not unanimous, as the States of Massachusetts, Mississippi, Nebraska, North Carolina, Tennessee, and Vermont were recorded against the act.

The act provides for mechanics' liens, including liens for materials, on real property, and penalties for misapplication of funds and for furnishing false statements. A "laborer" under the act is defined as "any person other than an architect, landscape architect, engineer, and the like who, under properly authorized contract, personally performs on the site of the improvement labor or services for improving real property, and does not furnish materials or the labor or services of others."

The chairman of the conference committee, Mr. Charles V. Imlay of the District of Columbia, stated that the principal feature of the proposed uniform law was the provision for the payment of the claims of laborers and materialmen without the formal procedure in a court action. To misapply funds and to furnish false statements comprises another feature not found in many of the present mechanics' lien laws.

The mechanics' lien act committee of the National Conference of Commissioners on Uniform State Laws, in addition to Mr. Imlay, includes Judge F. M. Clevenger, Wilmington, Ohio, section chairman; Judge James F. Ailshie, Coeur d'Alene, Idaho; Donald E. Bridgman, Minneapolis, Minn.; Charles M. Dutcher, Iowa City, Iowa; James M. Graham, Springfield, Ill.; Charles E. Lane, Cheyenne, Wyo.; William W. Moss, Providence, R. I.; and Lawrence C. Spieth, Cleveland, Ohio.

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## Labor Legislation in Canada, 1930<sup>2</sup>

LEGISLATION affecting labor enacted by the Parliament of Canada and the legislatures of the several Provinces during 1930 has been published in the Report on Labor Legislation in Canada, 1930, issued

<sup>1</sup> United States Daily, Sept. 11, 1931.

<sup>2</sup> Canada. Bureau of Statistics. General Statistics Branch. The Canada Yearbook, 1931. Ottawa, 1931. Pp. 788-790.

A general summary of Dominion and provincial labor laws to the end of 1928 is published in the Canada Yearbook, 1929. A summary of the 1929 legislation will be found in the 1930 Yearbook.

by the Dominion Department of Labor. The more important changes are noted below.

### Dominion Labor Legislation

THE fair wages and eight-hour day act provides for the payment of current or fair and reasonable rates of wages, and for the 8-hour day for employees on Dominion public works. Exceptions in regard to hours may be made in special cases.

By P. C. 670, dated March 27, 1930, it is provided that except where the work is intermittent in character or the application of the rule is not deemed to be in the public interest, the hours of work of employees of the Dominion Government who have heretofore been required to work more than 8 hours per day shall be reduced to 8, with a half holiday on Saturdays.

The unemployment relief act was passed at the special session of Parliament called to deal with unemployment. This act appropriated the sum of \$20,000,000 to be expended in public works undertaken by the Dominion Government to relieve unemployment, in assisting the Provinces with similar works, and in reimbursing the Provinces and municipalities for expenditure in connection with unemployment.

### Provincial Labor Legislation

IN ALBERTA the mines act was repealed and a new statute for the regulation of coal mines was enacted. No boy under 16 years of age may be employed in or about a mine. Formerly boys between 14 and 16 years might work above ground on certificates as to education. Operators of hoisting machinery must be at least 21 years of age and have certificates of mental and physical fitness from a competent medical practitioner, which must be renewed every six months. Among the new provisions is one authorizing agreements between employers and workmen for the payment of wages oftener than twice a month. New regulations were made as to mine equipment and numerous general rules were added.

In the revision of the Manitoba mines act the powers of the inspector in ordering the remedying of dangerous conditions were widened and more detailed statistical returns as to wages, etc., required.

Part VIII of the Ontario mining act, dealing with the operation of mines, was reenacted with a number of changes. These included provision for the maintenance of mine-rescue stations and for an 8-hour day for operators of hoisting engines.

The Saskatchewan one day's rest in seven act provides for a rest period of at least 24 consecutive hours in every seven days (on Sunday if possible) for industrial workers, including municipal employees. Certain exceptions are made, which are specified in the act. The law applies only in cities, but it may be extended to other parts of the Province by the lieutenant-governor in council, who may also withdraw industries from its scope.

The industrial establishments act of Quebec was amended to reduce the maximum normal working hours of women and girls and of boys under 18 years of age from 60 hours to 55 hours per week.

In Quebec workshops forming part of commercial establishments were brought within the scope of the women's minimum wage act and

the minimum wage commission was given power to fix the number of hours per week for which the minimum wage is payable, and to fix overtime rates. The minimum wage act of Alberta was made applicable to the whole Province.

A law providing for a minimum wage for women was enacted in New Brunswick and will come into effect on proclamation. This act applies to all female employees who work for wages except farm laborers and domestic servants. The board of five members has power to fix minimum wages and the number of hours per week for which such wages shall be paid, as well as overtime rates and special rates for handicapped workers and apprentices.

A new mechanics' lien act in Alberta is broader in scope and simpler in language than its predecessor.

Laws providing for mothers' allowances were enacted in Nova Scotia and New Brunswick, the New Brunswick act coming into force on proclamation. Both acts provide for the payment of an allowance, not exceeding \$60 per month, to a mother who is a widow with two or more legitimate children under 16 years of age and who is eligible under the conditions as to character, income, and residence in the Province. The mother of one child under 16 is eligible if she is herself an invalid or if she has an invalid child over 16 years of age residing with her.

The child welfare act of Manitoba was amended to provide for the payment of an allowance in respect of any child within the prescribed age who is born in Canada, whether or not the father of such child is a British subject by birth or naturalization. An amendment to the Saskatchewan child welfare act provides for the granting of an allowance to a mother whose husband has not been heard of for seven years.

A clause added to the children's protection act of Nova Scotia empowers the councils of cities and incorporated towns to pass by-laws regulating and controlling children under 16 years of age engaged as express or dispatch messengers and as venders of newspapers and small wares. Such by-laws must be approved by the lieutenant-governor in council before having the force of the law.

Under the Ontario school attendance law power to grant certificates relieving children from school attendance during employment is now given only to school attendance officers. The vocational education act of Ontario was reenacted with a number of changes, including the provision for instruction of children who reside in districts where the desired courses are not provided and the withdrawal of the optional system of administration, the single vocational committee method alone being retained.

An amendment to the Ontario apprenticeship act provides that the Ontario Minister of Public Welfare may require employers in any designated trade to contribute to the cost of maintaining the system of apprenticeship and administering the act.

The Manitoba workmen's compensation act was amended to carry out the recommendations of a special committee appointed in 1929. Compensation payable to a widow is raised from \$30 to \$40 per month. Monthly payments to a widow or invalid widower with or without children are limited to 66⅔ per cent of the average earnings of the workman, subject to a minimum of \$12.50 per week in the case of a widow or invalid widower with one child and \$15 per week if the



children number two or more. New provisions were enacted dealing with accidents outside the Province, including one covering cases in which the workman regularly spends some of his time outside of Manitoba. The section which denied compensation to dependents resident in countries which were enemy countries during the Great War was repealed as from May 17, 1929. The waiting period is now three consecutive days. To the schedule of industrial diseases were added conjunctivitis and rectinitis due to electro and oxyacetylene welding, and occupational dermatitis and ulcerations and infections of the skin due to certain specified employments.

The unemployment relief act of Alberta authorizes the payment from the general revenue fund of a sum not exceeding \$100,000 for the purpose of supplying relief to the unemployed of the Province.

The electrical energy act of Alberta provides for regulations governing, among other things, the inspection of plants and equipment, the safety of workers, and the licensing of electricians. The steam boilers act of Saskatchewan was the subject of a number of amendments relating to qualifications for certificates.

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### First Labor Legislation in Persia

**A** DISABILITY-INSURANCE fund for workers under the jurisdiction of the Persian Ministry of Roads and Communications is provided for in a decision of the ministry, and constitutes the first piece of labor legislation in Persia, according to a communication from the American minister, Charles C. Hart, at Teheran, dated August 20, 1931.

The decision is said to provide coverage for 10 types of cases, ranging from the loss of a phalanx to total disability, for each of which adjusted compensation, reaching as high as 2,000 toman (\$800), is prescribed, depending upon the nature of the injury and the wage or salary grade and period of service of the claimant. For the establishment of the fund, the minister states, one shaihi (one-fifth of a cent) is to be deducted from the daily wages of each laborer and 2 per cent from the salaries of employees and technicians, these amounts to be paid into the general treasury, which will open a special account from which the disability payments will be made.

The proposed fund was reported in the Persian press of August 10, 1931, as having been approved by the Council of Ministers.

# WORKMEN'S COMPENSATION

## The Attitude of the Railroad Brotherhoods toward Workmen's Compensation<sup>1</sup>

By W. N. DOAK, UNITED STATES SECRETARY OF LABOR

The subject assigned to me, "The Attitude of the Railroad Brotherhoods Toward Workmen's Compensation, and the Reason for Such Attitude," is somewhat difficult of approach inasmuch as it involves considerable explanation, and moreover, I think the word "attitude" may properly be used in the plural, because the railroad brotherhoods have taken several attitudes toward the subject of a national workmen's compensation law.

The Brotherhood of Railroad Trainmen, which I had the honor of representing as an officer for many years, has taken a consistent attitude in opposition to a workmen's compensation law since it was first presented to a convention of the brotherhood more than 18 years ago, and in my discussion of the subject I would prefer to discuss the attitude of the Brotherhood of Railroad Trainmen, rather than to trespass upon your time by discussing the position of other railroad labor organizations with which I am not as familiar as I am with the action of my own organization.

The status of intrastate and interstate employees, as affecting their rights of recovery either under a State compensation act or the Federal employers' liability act, has become more clearly defined than it was several years ago. When it was proposed to abrogate the Federal employers' liability act and enact in its stead a national compensation measure, discussion among the railroad employees of all kinds in this country became active and occasionally vehement. A commission was appointed more than 18 years ago to make a study of this problem and made a report to Congress favorable to a Federal compensation act to supplant in substance the Federal employers' liability act. It was favored, I believe, by a majority of the railroad brotherhoods, but opposed by the Brotherhood of Railroad Trainmen, with the result that it did not become a law.

Since the first action was taken by the convention of Railroad Trainmen, subsequent conventions of that organization have reaffirmed the opposition to workmen's compensation, and have actively opposed its enactment up to and including the latest convention, which was held early this year. It should be borne in mind that perhaps there would not have been such marked opposition to a Federal workmen's compensation act on the part of the trainmen, if the provisions of the Federal employers' liability act could likewise have been preserved as an optional remedy to be used in aggravated cases, but when it was proposed to supplant the Federal employers' liability act by a compensation act, leaving compensation as the sole and exclusive remedy by which recovery for damages for injuries received by railroad employees could be had, then the opposition became very pronounced.

<sup>1</sup> Read before the eighteenth annual meeting of the International Association of Industrial Accident Boards and Commissions, Richmond, Va., October 6, 1931.

One of the strong points made in opposition to a compensation act was that it deprived a certain class of railroad employees of the advantages given them under the Federal employers' liability law. For instance, men who were injured or killed as a result of negligence or purely on the assumption of the risks of their employment, would be treated the same as those who might be otherwise injured or killed.

Also, at the time the compensation question first came before our convention, conditions of employment had not reached the higher stage of perfection which is the case at the present time, and a large number of injuries and deaths were being caused through lack of proper equipment, and otherwise. Then, too, great efforts had been put forward on behalf of railroad labor in securing the passage of adequate employers' liability laws having the old common-law doctrine of fellow-servant, contributory negligence, and assumed risk removed as defenses on the part of the employer. The fact that the railroads had sought to apply this principle, perhaps, to a great extent to its employees and to hide behind the old common-law doctrine, had a tendency to make the railroad employees skeptical of any change in the employers' liability act which would in any manner tend to a reversion to old methods.

Also, it should be borne in mind that the new Federal employers' liability act had been passed in 1908, amended at great expense and effort by railroad labor organizations in 1910, and the United States Supreme Court had upheld its constitutionality in January, 1912, and right in the face of these enactments and this judicial determination, workmen's compensation was presented to the convention early in 1913.

The schedules of payments proposed under the compensation act, and so far as I know the schedule now generally in effect where workmen's compensation governs, are of such a nature and so small in their final payments that railroad employees do not believe any plan of workmen's compensation so far proposed is adequate in cases of major injuries or violent deaths, where it is plainly established that the cause of the injuries or death was the negligence of or inadequate protection by the employers. I will, therefore, endeavor to point out some of the principal objections to giving as the sole and exclusive remedy any plan of workmen's compensation which would entirely remove the right of employees to go into court under a proper liability law and seek recovery of damages in certain classes of cases.

The principal objections raised by the railroad employees to workmen's compensation when this matter was first presented may, I think, be summarized as follows:

1. The enactment of an exclusive compensation law would set aside the provisions of the employers' liability laws, Federal and State, and would prohibit employees injured in the service or the heirs of employees killed in the industry from bringing suits for damages, and would virtually mean a surrender of their constitutional rights. Therefore, such a provision would be repugnant to railway employees affected by its terms, as the right of trial by jury would be denied.

2. Railway employees object to compensation because the schedules of amounts to be paid are inadequate.



3. The railway employees believe that the employers' liability law of 1908, amended in 1910, and its constitutionality upheld by the United States Supreme Court in 1912, has had the effect of forcing rail carriers to settle thousands of personal injury claims out of court on a liberal basis, and the influence and effect of this law would be destroyed should a Federal compensation law be enacted, and would thereby cheapen settlements and encourage many of the unsatisfactory conditions that prevailed prior to the enactment of the Federal employers' liability law.

4. The railway employees fear that the courts might construe a compensation law to exclude employees injured or killed while in the service, if the accident did not arise out of and in the course of their employment which resulted in disability or death. This fear is based upon decisions handed down by the English courts under the English compensation act which have deprived numerous worthy employees and their dependents of compensation.

5. Railroad employees fully recognize the iniquitous practice which has grown up under the employers' liability law with respect to injustices perpetrated by certain classes of lawyers, who, in many instances, exact from 33½ to 50 per cent of net settlements made for injuries and death. However, up to the present time no compensation laws have been proposed that are automatic and that will insure the payment of amounts prescribed to claimants without, in many instances, protests being made resulting in the necessity of legal advice, and since the schedules of payments are usually fixed so low that such claimants could not afford to employ attorneys, even though they might be sure of winning their claims, they would, therefore, be left to accept almost any adjustment offered ranging between the minimum and maximum allowances fixed in the schedules. Therefore, railway men believe that inasmuch as they will be obliged to go into court in many instances to bring about an adjustment of their claims, they stand a better chance of securing a fair settlement under the employers' liability act, which is not limited as to damages, than under any compensation act that might become a law which would provide certain scheduled limitations.

6. Under compensation laws adjusters or judges are usually appointed to determine the amount of compensation to which the injured employee is entitled. Railroad train and yard men, while appreciating the fact that many judges are honest and courageous, are skeptical of having their cases determined by adjusters appointed by the United States district court in each judicial district, for the reason that the railroad that injured them has wealth and political influence behind it, while they are often unknown and without political influence or money. They feel that this handicap might result in the schedule allowance being minimized in many instances.

7. Railway men thought, generally speaking, that the compensation laws heretofore proposed required certain technical procedure that laymen could not intelligently and effectively meet in opposition to the trained legal representatives of the carriers without the employment of attorneys. In other words, the legal procedure necessary to recover damages is made more complex and would add more legal technicalities than under the present liability laws, resulting in the recovery of less damages for the injured employees.

8. The compensation laws heretofore proposed have provided schedules that were beggarly low in cases of death where no heirs were left except children, thereby reducing the liability of the carriers, which we believe is fundamentally wrong.

9. Compensation, generally speaking, places an estimate on human life and limb so low that one wonders how men who know life and its hardships can favor it as against liability.

10. Members of the Brotherhood of Railroad Trainmen are not opposed to the principle of compensation, and it is hoped that some day a compensation act that provides adequate scheduled allowances which will be simple, certain, and automatic, will be introduced and such an act doubtless would meet the approval of train and yard men.

11. Train and yard men, who are largely the victims of injuries and death on account of the character of their service, appreciate the fact that under the best plan that can be arranged under our American legal system for compensation for injuries to workmen, even under the most favorable conditions, "compensation laws" can not be enacted that are fully adequate and the term grates harshly on the Christian ear. After all there can be no adequate compensation to the widows and orphans when the husband and father has been cruelly separated from them by this modern Juggernaut of civilization. There is no compensation to the young man who in the very prime of life suffers excruciating injuries, and the loss of limb, or limbs, while engaged in an honorable effort to win his daily bread. What compensation can there be to the families of those, the breadwinners, whose poor mortal bodies have cooked in hissing steam, or been driven into a lifeless mass of human pulp by the crushing timbers of a railway wreck?

The term "compensation" as applied in these cases is a misnomer, and perhaps it would be more appropriate should we use the word "relief." In any event, the train and yard men of this country will be willing to give further consideration, as before stated, to an adequate plan of relief that will guarantee to their injured brothers and the widows of those killed in the industry financial relief in amounts equal or greater than now paid under the compensation laws, which we must admit are not wholly satisfactory, especially in cases where the most violent injuries or deaths have occurred as the result of following so hazardous an occupation as railroading, even with the greatest safeguards so far conceived by man.

Despite herculean efforts put forward by the railways, their employees, and a sympathetic public in the direction of safety and "safety-first" measures, there still remains that element of danger due to the very nature of the work in which train and yard men are engaged, which makes for extreme caution on their part in the surrender of any constitutional or inherent rights which in any manner may have the tendency to relieve employers of full responsibility in the maintenance of eternal vigilance over their welfare. Compensation, as construed, outlined, and applied even under what we sometimes term our "advanced system," in the larger sense does not have the compensatory, corrective, and deterrent effects as does employers' liability, properly, fearlessly, and humanely administered by courts and unbiased juries.

Therefore, unless and until radical forms in systems already adopted are made, schedules more wisely increased with the aim of

affording redress of a more reasonable character to the men engaged in these hazardous occupations, I am seriously of the opinion that the railroad trainmen will oppose workmen's compensation as the sole and exclusive remedy.

This view is sustained, I am sure, because 18 years' experience has made no change in the attitude of the brotherhood as evidenced by the last convention held this year which reaffirmed the stand taken in 1913 on this subject.

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### **Meeting of International Association of Industrial Accident Boards and Commissions, 1931**

THE eighteenth annual convention of the International Association of Industrial Accident Boards and Commissions was held in Richmond, Va., October 5-9, 1931. There was a total registration of 235 persons from 23 States, the District of Columbia, and two Canadian Provinces (Nova Scotia and Ontario).

The convention was formally opened by Parke P. Deans, chairman of the Industrial Commission of Virginia and president of the association. In the opening address, Mr. Deans showed the developments in the field of workmen's compensation, including a general review of the acts of the various States and of the Canadian Provinces during the legislative year of 1931. During this session, reports of the committees on statistics and compensation insurance costs, medical, safety, rehabilitation, and workmen's compensation legislation were made.

Mr. John A. Kratz, chief Vocational Rehabilitation Service, Washington, D. C., reviewed the work which the Federal Board of Vocational Education is doing at the present time.

Ethelbert Stewart, United States Commissioner of Labor Statistics, submitted his report as secretary-treasurer and announced that the association had an active membership of 35 and an associate membership of 9.

The results of the work of the committee which was appointed at the Wilmington convention relative to the best methods and most convenient time for calling a convention on all-American workmen's compensation law administration were made known in part. During the course of the year, Dr. Walter O. Stack was appointed as a committee of one to carry on preliminary work relative to the intended conference. The secretary also reported that a course in safety engineering had been inaugurated in the department of industrial engineering of the University of Pennsylvania.

At the session on Tuesday, Mr. Fred M. Wilcox, of the Industrial Commission of Wisconsin, discussed in detail third-party responsibility in case of industrial accidents.

Mr. G. Clay Baker, chairman of the Commission of Labor and Industry of Kansas, submitted a paper on the Relationship of Contractor and Subcontractor and Their Employees Under Workmen's Compensation. Mr. O. F. McShane, of the Industrial Commission of Utah, discussed this paper.

The Attitude of the Railroad Brotherhoods Toward Workmen's Compensation and the Reason for Such Attitude was the subject of



the paper to be read by the Hon. W. N. Doak, United States Secretary of Labor. Mr. Doak was unable to be present at the convention and his paper was read by Mr. Chas. E. Baldwin, assistant commissioner United States Bureau of Labor Statistics. In the discussion which followed the reading of this paper, Mr. Ethelbert Stewart explained that Mr. Doak had been asked to express the views of the railroad brotherhood on workmen's compensation and that nowhere in the paper did the Secretary say that this was his personal attitude on the subject.

Dr. Walter O. Stack, of the Industrial Accident Board of Delaware, presided at the afternoon session. What Should Be Required of Self-insurers was the title of the paper allotted to W. H. Horner, director of the Bureau of Workmen's Compensation, Department of Labor and Industry of Pennsylvania, which paper in turn was discussed by George A. Kingston, of the Workmen's Compensation Board of Ontario.

The paper Status and Relationship of Total and Partial Dependency and How Determined, by Charles E. Corbin, deputy commissioner of workmen's compensation, New Jersey, was discussed by H. M. Stanley, chairman Industrial Commission of Georgia, and F. M. Williams, chairman Board of Compensation Commissioners of Connecticut.

Mr. Donald D. Garcelon, of the Industrial Accident Commission of Maine, delivered A Résumé of the Deductions and Substantial Requisites to Be Allowed in the Computation of the Average Weekly Wage as Based Upon the Express and Implied Contracts of Hire.

A paper on the subject of willful misconduct so as to take the employee out of the scope of his employment was delivered by W. H. Nickels, jr., of the Industrial Commission of Virginia. The discussion on this paper was by Miss R. O. Harrison, director of claims, State Industrial Accident Commission of Maryland.

At the Wednesday sessions, both devoted to medical problems, the chair was occupied by Dr. G. H. Gehrman, medical director of E. I. duPont de Nemours & Co. (Inc.), Wilmington, Del., and Dr. H. U. Stephenson, chief medical examiner Industrial Commission of Virginia. Papers on the medical aspect of workmen's compensation laws included the following: Should a Course in Industrial Medicine be Included in the Curriculum of Medical Schools? by Dr. Henry Field Smyth, assistant professor of industrial hygiene, University of Pennsylvania; Settlements as a Therapeutic Measure, by Dr. Henry H. Kessler, medical director New Jersey Rehabilitation Commission; Relationship of Arthritis and Traumatic Injuries, by Dr. C. H. Watson, of the American Telephone and Telegraph Co., New York City; Care and Treatment of Injured to Avoid Traumatic Neurosis, by Dr. Richard H. Price, of E. I. duPont de Nemours & Co. (Inc.); The Value and Equipment of First-aid Stations, by Dr. H. G. Longaker, chief surgeon Newport News Shipbuilding and Drydock Co.; The Differential Diagnosis of Traumatic and Occupational Chemical Injuries, by Major General H. L. Gilchrist, chief Chemical Warfare Service, Washington, D. C. Discussions on the various phases of these papers were held by the following members of the medical profession: Dr. W. T. Sanger, president Medical College of Virginia; Dr. J. Morrison Hutcheson, professor of clinical medicine,

Medical College of Virginia; Dr. F. H. Smyth, diagnostician, George Ben Johnston Hospital, Abingdon, Va.; Dr. H. Page Mauck, orthopedic surgeon, Richmond; Dr. W. Tate Graham, orthopedic surgeon, State Board of Health; Dr. R. Finley Gayle, jr., associate professor of nervous and mental diseases, Medical College of Virginia; Dr. S. E. Gunn, of Tubize Chatillon Corporation of Hopewell, Va.; and by two diagnosticians—Dr. Warren T. Vaughan and Dr. Dean Cole.

On Thursday morning the session dealt essentially with safety and was presided over by R. B. Morley, general manager of the Industrial Accident Prevention Association of Ontario. The paper by Cyrus S. Ching, director of industrial relations United States Rubber Co., New York City, on the subject Can Industrial Accidents be Prevented by Management? If so, What Measures Do You Advocate? was discussed by George Miller, of the E. I. duPont de Nemours & Co. (Inc.) and by notes submitted by John Shaw, of the Hercules Powder Co., of Wilmington, Del., which were read by the chairman.

Selling Safety to the Industrial Executive was the title of the discussion by W. Graham Cole, director of safety service, Policyholder's Service Bureau, of the Metropolitan Life Insurance Co. Mr. Chas. Senft, of the Globe Indemnity Co., and Mr. Bernard H. Menke, of the Liberty Mutual Insurance Co., led the discussion on the paper.

Mr. H. A. Reninger, vice president Lehigh Portland Cement Co., deliberated on How Can Factory Inspection Be Improved and Dignified? Mr. Thomas P. Kearns, Department of Industrial Relations of Ohio, was appointed to discuss the subject matter of this paper.

The Thursday afternoon session was set aside for the discussion of safety codes and accident statistics. The chairman of this meeting was Charles R. Blunt, commissioner Department of Labor, New Jersey. The question as to whether safety codes had helped accident-prevention work was discussed by Mr. Cyril Ainsworth, assistant secretary American Standards Association, in a paper entitled "Has the Development of Safety Codes Helped Accident-Prevention Work in Industry?" Mr. Charles H. Weeks, Deputy Commissioner of Labor, New Jersey, spoke on the subject of Efforts for More Effective Regulation for Hazardous Electrical Equipment. Discussions on these two subjects were led by Mr. Ethelbert Stewart, United States Commissioner of Labor Statistics, and supplemented by Dr. L. W. Hatch, Industrial Board of New York, and M. G. Lloyd, United States Bureau of Standards, Washington, D. C.

The subject of accident statistics closed the deliberations of the convention on the third day, when Dr. Eugene B. Patton, Department of Labor of New York, discussed Are Accident Statistics Entirely Satisfactory? How Can We Improve Them? Do They Furnish Enough Data? He was followed in the discussion by Frank P. Evans, of the Industrial Commission of Virginia, and William J. Maguire, of the Department of Labor and Industry of Pennsylvania.

The closing meeting of the convention was a night session, at which the main topic under consideration was the right of an employee to waive his rights under the compensation act. Miss Frances Perkins, industrial commissioner, Department of Labor of New York, showed the extensive use of the employment waiver as a pressing evil under workmen's compensation laws. Joseph A. Parks, of the Department

of Industrial Accidents, Massachusetts, and Fred W. Armstrong, of the Workmen's Compensation Board of Nova Scotia, followed in additional discussion of the waiver rights of employees.

At this session John C. Root, chief claims examiner Industrial Commission of North Carolina, spoke on Procedure for Securing Valid Election by Those Exempted From the Act. This paper was discussed by Joel Brown, of the Industrial Accident Board of Idaho.

At this closing session, reports of the various committees were made, including that of the workmen's compensation legislation. The latter committee submitted to the convention model provisions on insurance, extraterritorial coverage, and third-party liability, for adoption by the respective States. The convention also went on record in favoring preferred claims in workmen's compensation cases under the national bankruptcy act. The committee also adopted and approved cooperating with the committee on the regulation of the employment of minors in hazardous trades on the recommendations of the White House conference.

The following officers were elected for the ensuing year: Wellington T. Leonard, chairman of the Industrial Commission of Ohio, president; Joel Brown, Industrial Accident Board of Idaho, vice-president; Ethelbert Stewart, Commissioner of Labor Statistics, Washington, D. C., secretary-treasurer; executive committee—Wellington T. Leonard, Ohio; Parke P. Deans, Virginia; Ethelbert Stewart, Washington, D. C.; L. W. Hatch, New York; W. H. Horner, Pennsylvania; George W. Kingston, Ontario; G. Clay Baker, Kansas; and R. E. Wenzel, North Dakota.

The 1932 meeting will be held in Columbus, Ohio. The complete proceedings of the eighteenth annual convention will be published in bulletin form by the United States Bureau of Labor Statistics.

## Recent Compensation Reports

### Georgia

**T**HE report of the Industrial Commission of Georgia for the calendar years 1929 and 1930 calls attention to the legislative amendments of 1929 to the workmen's compensation act, requiring employers to report the frequency of accidents in their establishments on the basis of man-hours worked, and providing for the gathering and compiling of various rate-making data by the industrial commission and the insurance commissioner.

Statistical methods have consequently been revised, to secure as much uniformity with statistics kept by other States as conditions in Georgia will permit, and future reports will be in greater detail than this report, which presents statistical tables with combined figures for the 2-year period.

The construction industry was responsible for the largest number of accidents during the two years, with textiles second, followed by dealers, wood products, and food products. The largest number of fatal cases occurred also in construction, with wood products second and utilities third.

The following table, compiled from figures in the report and in former reports, shows a comparison of the number of accidents re-



ported during the 2-year period, by degree of disability, and the amount of benefits paid, with similar data for 1925-1926 and 1927-1928.

ACCIDENTS REPORTED, BY DEGREE OF DISABILITY, AND BENEFITS PAID, 1925-1930

2 years ending December 31—	Number of accidents reported						Benefits paid
	Compensable				Noncom- pensable	Total	
	Fatal	Perma- nent total	Perma- nent partial	Temporary total			
1926.....	253	1	1, 140	12, 259	46, 863	60, 516	\$1, 736, 627
1928.....	208	5	981	11, 147	41, 172	53, 513	1, 560, 496
1930.....	279	4	1, 382	12, 180	45, 961	59, 806	2, 122, 079

The benefits shown in the table consist of compensation, funeral benefits, and medical benefits, except contract medical, which was \$15,031 for 1927-28, and \$12,500 for 1929-30.

The average compensation for the temporary total cases was \$22.87 in 1925-26, \$23.25 in 1927-28, and \$29.91 in 1929-30, while the average medical benefit was, respectively, \$25.91, \$24.11, and \$27.76, making the total average cost \$48.78, \$47.36, and \$57.67. The average medical expense for the noncompensable accidents (involving 7 days' or less disability) was \$6.13 in 1925-26, \$6.36 in 1927-28, and \$7.05 in 1929-30.

#### Massachusetts

ACCORDING to the report of the Department of Industrial Accidents of Massachusetts for the year ending June 30, 1930, reports were filed during the year of 170,663 industrial injuries, or 10,480 more than for the year ending June 30, 1929. There was a corresponding increase in tabulatable injuries (those causing disability of at least one day), which totaled 61,741 for 1929-30, or 1,546 more than for the previous year. A decrease is, however, shown in fatalities, which numbered 344, as compared with 355 for 1928-29. The balance of the tabulatable injuries in 1929-30 consisted of 7 causing permanent total disability, 1,179 causing permanent partial disability, and 60,211 causing temporary total disability.

The weighted time loss charged to fatalities and permanent disabilities, together with the actual time loss in temporary disabilities, aggregated 4,803,557 days, distributed as follows: Fatalities, 43 per cent; permanent total disabilities, 0.9 per cent; permanent partial disabilities, 18.4 per cent; and temporary total disabilities, 37.7 per cent. It is pointed out that in 21,467 cases, or 35.7 per cent of all temporary total disability cases (60,211), the period of disability did not exceed seven days.

Insurance companies reported that payments made and to be made on account of injuries reported during the year amounted to \$9,861,383.09, distributed as follows: Compensation, fatal cases, \$1,051,211.22 (10.7 per cent); compensation, nonfatal cases \$5,577,004.32 (56.5 per cent); and medical expense, all cases, \$3,233,167.55 (32.8 per cent). The average cost per tabulatable case, including

compensation and medical benefits, was \$159.71, as compared with an average cost of \$157.18 for the year 1928-29. The increase is declared to be mainly due to having seven permanent total disabilities in the current year, as against four cases in the preceding year.

It is stated that one out of every 10 tabulatable injuries resulted in infection, a condition more or less chargeable to the individual, because investigation made by the department of labor and industries indicated that facilities for first-aid treatment were available in the greater majority of cases, but that the injured neglected to make use of them.

The report contains a number of statistical tables, showing the experience under the act in detail. In the following table is presented a summary distribution of the tabulatable injuries reported during the year, by industries and by extent of disability.

TABULATABLE INJURIES REPORTED FOR YEAR ENDING JUNE 30, 1930, BY INDUSTRY GROUPS AND EXTENT OF DISABILITY

Industry group	Number of injuries reported				
	Fatal	Perma- nent total disabili- ties	Perma- nent par- tial dis- abilities	Tempo- rary total disabili- ties	Total
Agriculture.....	6	1	10	803	820
Minerals.....	3	0	10	259	272
Building trades.....	72	1	103	7,824	8,000
Chemicals.....	6	0	12	666	684
Clay, glass, stone.....	6	0	24	625	655
Clothing.....	0	0	1	539	540
Food.....	4	0	45	2,566	2,615
Iron and steel.....	27	0	225	6,559	6,811
Leather.....	6	0	59	3,115	3,180
Liquors.....	0	0	0	211	211
Lumber.....	7	0	86	1,944	2,037
Metals.....	4	0	30	696	730
Paper.....	6	0	52	1,839	1,897
Printing.....	2	0	22	869	893
Textiles.....	20	0	149	5,176	5,345
Transportation, air.....	1	0	0	8	9
Transportation, road.....	64	2	61	6,539	6,666
Transportation, water.....	1	0	2	540	544
Transportation, miscellaneous.....	0	0	2	135	137
Express.....	2	0	2	521	525
Telephone, telegraph.....	2	0	2	240	244
Trade.....	41	1	102	9,551	9,695
Professional.....	8	0	10	763	781
Service.....	19	0	34	3,266	3,319
Miscellaneous.....	37	2	136	4,957	5,132
Total.....	344	7	1,179	60,211	61,741

### Ontario

A SUMMARY of the figures presented in the report of the Workmen's Compensation Board of Ontario for the calendar year 1930 shows a large decrease in the number of accidents reported for the year, as compared with the number reported for 1929, which is stated to be fairly indicative of the decrease in employment in the industries of the Province.

Reports were received from the industries covered under the collective liability system (schedule 1) of 61,490 accidents in 1930, against 76,029 in 1929, a decrease of 19.1 per cent, and from the large public service and municipal corporations, covered under the

individual liability system but under regulations of the board (schedule 2), of 4,486 accidents in 1930, against 6,008 in 1929, a decrease of 25.3 per cent. A still larger reduction was made in Dominion and provincial Crown cases, likewise under the act, which totaled 3,291 for 1930, against 5,066 for 1929, a decrease of 35 per cent.

The provisional pay rolls reported to the board for schedule 1 industries also showed a substantial reduction—from \$543,455,000 for 1929 to \$485,262,000 for 1930—and the number of employers in this group decreased from 24,078 in 1929 to 23,912 in 1930. Similar data are not available for schedule 2 and Crown industries, which are not required to report such items.

The total amount of benefits awarded in 1930 was \$7,423,018.82, including \$1,336,046.05 for medical aid in schedule 1 industries, as compared with \$8,012,157.78 for 1929, including \$1,385,524.62 for similar medical aid. Medical aid in schedule 2 and Crown cases is furnished directly by the employer and cost is not reported.

The average rate of assessment in all classes of schedule 1 industries, based on the provisional pay-roll expenditure, is calculated at \$1.40 per \$100 pay roll, as compared with \$1.35 in 1929. The total administrative expense, which is paid by the employers coming under the act without any governmental assistance, was 4.67 per cent of the benefits awarded.

It is pointed out that continued interest in accident prevention and safety work is shown by employers. Three new safety associations were formed during the year, representing the steel erection group in class 23 (steel construction, railway and canal construction, dredging, fishing, etc.), the larger employers in class 24 (building), and the mining employers.



# COOPERATION

## Condition of Labor Banks, June, 1931

ON June 30, 1931, there were in existence 11 banks operating under labor-union auspices. These banks had combined deposits of \$50,949,570 and total resources amounting to \$59,401,164. During the fiscal year 1930-31, the Farmers' and Workingmen's Savings Bank at Jackson, Mich., and the Gary Labor Bank at Gary, Ind., closed, and on August 17, 1931, the American Bank at Toledo, Ohio, went out of business. The Hawkins County Bank, while still in operation on June 30, 1931, furnished no report.

The details for each bank, shown in the following table, were supplied by Prof. J. Douglas Brown of Princeton University:

TABLE 1.—CONDITION OF LABOR BANKS, AS OF JUNE 30, 1930

Name and location of bank	Share capital	Surplus and undivided profits	Deposits	Total resources
Federation Bank & Trust Co., New York, N. Y.-----	\$750,000	\$1,215,638	\$16,698,811	\$19,173,831
Amalgamated Bank, New York, N. Y.-----	650,000	519,974	7,984,888	9,364,798
Telegraphers' National Bank, St. Louis, Mo.-----	500,000	168,554	6,473,062	7,420,396
Labor National Bank, Paterson, N. J.-----	300,000	161,540	5,711,611	6,280,035
Mount Vernon Savings Bank, Washington, D. C.-----	400,000	168,425	4,276,274	4,923,656
Union National Bank, Newark, N. J.-----	375,000	226,703	3,740,404	4,406,597
Labor National Bank, Jersey City, N. J.-----	400,000	179,811	2,209,570	2,904,061
Amalgamated Trust & Savings Bank, Chicago, Ill. <sup>1</sup> -----	200,000	<sup>2</sup> 209,864	2,313,945	2,723,810
American Bank, Toledo, Ohio <sup>3</sup> -----	200,000	71,257	1,044,652	1,523,965
United Labor Bank & Trust Co., Indianapolis, Ind.-----	112,500	22,500	349,357	484,357
Labor National Bank, Three Forks, Mont.-----	25,000	8,612	146,996	195,688
Total (11 banks)-----	3,912,500	2,952,878	50,949,570	59,401,164

<sup>1</sup> Data as of July 15, 1931.

<sup>2</sup> Includes reserves for interest, taxes, etc.

<sup>3</sup> Closed Aug. 17, 1931.

Table 2 shows the development of the labor-bank movement since 1920, when the first of these banks was founded.

TABLE 2.—DEVELOPMENT OF LABOR BANKS IN THE UNITED STATES, 1920 TO 1931<sup>1</sup>

End of December—	Number of banks	Share capital	Surplus and undivided profits	Deposits	Total resources
1920-----	2	\$960,000	\$194,446	\$2,258,561	\$3,628,867
1921-----	4	1,280,000	255,869	9,970,961	12,782,173
1922-----	10	2,050,473	742,689	21,901,641	26,506,723
1923-----	18	4,222,230	1,353,022	43,324,820	51,496,524
1924-----	26	6,441,267	1,891,757	72,913,180	85,325,884
1925 <sup>2</sup> -----	36	9,009,072	3,467,829	98,392,592	115,015,273
1926-----	35	8,914,508	3,837,377	108,743,550	126,533,542
1927-----	32	8,282,500	3,747,176	103,290,219	119,818,416
1928-----	27	7,537,500	3,821,205	98,784,369	116,307,256
1929 <sup>3</sup> -----	22	6,687,500	3,807,579	92,077,098	108,539,894
1930 <sup>3</sup> -----	14	4,112,500	3,105,336	59,817,392	68,953,855
1931 <sup>3</sup> -----	11	3,912,500	2,952,878	50,949,570	59,401,164

<sup>1</sup> Data are from Princeton University, Industrial Relations Section, Report on Labor Banking Movement in the United States, Princeton, 1929, p. 277, and additional new material furnished by the university to the Bureau of Labor Statistics.

<sup>2</sup> Amalgamated Bank of Philadelphia not included.

<sup>3</sup> June 30.

# LABOR ORGANIZATIONS AND CONGRESSES

## 1931 Convention of the American Federation of Labor

THE fifty-first annual meeting of the American Federation of Labor<sup>1</sup> opened at Vancouver, British Columbia, October 5, 1931. After greetings by various Canadian officials, Mr. William Green, the president of the federation, addressed the delegates, defining the purpose of the convention, as follows:

We come as men interested in the common economic, social, and industrial welfare of the peoples of the two nations. We deal with human values. We are endeavoring to promote those intangible values which make for a better civilization, a better day, and a better life. We seek for a more equitable distribution of the wealth created by human hands, not for the purpose of enriching individuals or groups, but for the purpose of making life more tolerable and happy.

Referring to "the world-wide distress affecting the well-being and happiness of hundreds of millions of people," Mr. Green said:

Because of this dislocation of our economic structure, because there is suffering in a land where plenty exists in abundance, men and women who are the victims possess inquiring minds. They are asking questions that are difficult to answer. They are wondering whether the system itself set up by society in every nation has failed. Surely it is not to the credit of a social order when, on the one hand, we find the Creator of the Universe supplying us with food in abundance and, on the other, are millions standing starving and hungry. We may well ask the question, has capitalism failed? Surely it is not to its credit when we find a condition such as now exists in our beloved lands. Shall we live in an age and a time when wealth increases in the hands of a few and men decay? Shall those human values to which I refer be destroyed? What about a system that relegates a man in the prime of life to the human scrap heap, that knows no other remedy for economic depression than to reduce the standard of living, to depress the values already here, to reduce and impair the purchasing power to a much lower point.

Pointing out that the machine is now doing work that was formerly done by human hands, Mr. Green declared that, notwithstanding this fact, industrial managers still continue their efforts to have men labor six days a week and long hours, while others are jobless. He proposed the immediate adoption of the 5-day work week in both public and private industries and that the working-day be "so shortened as to meet the requirements of this unemployment situation and work divided through an adjustment of the working time, so that the slack of employment may be taken up and all men and women given an opportunity to work." He further proposed that the wage structure established "through the efforts of organized labor and the working men and women of the different nations of the world, and particularly of our own country, shall not be destroyed and the wage standards shall not be lowered."

The standard of life and living among the masses of the people must be maintained upon a high level if domestic tranquillity and social satisfaction are to prevail. Men and women must be conscious of the fact that they are receiving a square deal, that they are being treated fairly, that they are not the victims of injustice, oppression, or exploitation. The permanency of our institutions depends upon such a state of mind.

<sup>1</sup> American Federation of Labor. Report of proceedings of the fifty-first convention (advance copy), Vancouver, B. C., 1931; Report of the executive council to the fifty-first annual convention, Vancouver, B. C., 1931.

Commenting upon the acute unemployment situation in the United States, Canada, and Europe, Mr. Green warned:

This great army of the unemployed stands as a menace to the security of governmental institutions. There is no urge quite so powerful as the urge of the hunger instinct. It moves men and women mightily. They don't draw the fine line of distinction between that which seems right or socially wrong when they seek to satisfy hunger. It is a mighty urge. It can not be dealt with through the application of those rules and laws that society has set up.

Among other speakers at the sessions were the Hon. James J. Davis, United States Senate, former Secretary of Labor; Hon. Ralph Ashley Horr, Member of Congress; Edward P. Keating, editor of *Labor*; and two British fraternal delegates, one of them asserting that he was amazed at the misunderstanding outside of Great Britain concerning and British unemployment insurance act, and the other branding as "a bitter and malicious lie" the allegation that young England is demoralized because of unemployment pay. The Canadian fraternal delegate and the secretary of the Workers' Education Bureau also made interesting reports.

#### Report of the Executive Council

THE average paid-up and reported membership for the year ending August 31, 1931, was 2,889,550, a decrease of 71,546 as compared with that of the preceding year. Such membership was distributed in 28,229 local unions; in the 105 national and international unions, with 2,875,019; and in 334 local trade and Federal labor unions, which are directly affiliated with the American Federation of Labor and have 14,531 members.

The balance on hand for August, 1930, and the total receipts for the year under review amounted to \$932,827.20, and the total expenditures to \$561,985.13, the balance on hand August 31, 1931, being \$370,842.07, of which \$52,527.88 was in the general fund and \$318,314.19 in the defense fund.

*Fifty years of service.*—The executive council's report includes a resumé of the Federation's half century of accomplishment. During these five decades the organization has "helped to give this country upstanding workers with the highest wage levels in the world and the highest standards of living. We have ahead of us the problem of extending these gains to backward areas while steadily advancing the standard for those in the front ranks of progress." In connection with its discussion of the Federation's contribution to industry the council touches on principles of time economies, the high-wage principle, and principles of personnel relations, greater efficiency, and regularization of employment.

*Gains by organization.*—Under the foregoing heading the council states that in the 50 years of the Federation's existence "workers have gained 15 hours' leisure per week and increased their buying power by \$13 a week (for full-time work, in terms of actual buying power—'real wages'); hours of work decreased from 63 a week in 1880 to 48 a week in 1930; wages per hour increased from 19 cents in 1880 to 72 cents in 1929 (in actual money). Buying power of average wages, in terms of 1929 dollars, increased from \$21.80 a week in 1880 to \$34.75 in 1929."



*Ethical standards to govern relations between employers and workers.*—The wage earners' ethical and legal right to organize and to be represented by those whom they designate is based squarely, the council holds, upon the principle of "functional responsibility proportionate to information and service." Further on in the report it is stated that "industries which refuse to pay their wage earners their share of the returns from the products which they help to produce will pay for their unwisdom by the losses of business depression. Companies which pay less than a living wage will lose by lowered capacity of workers to produce, lowered morale, and the expense of changing personnel."

*Benefit services of national and international unions.*—The following figures on the benefit services of national and international unions are submitted by the council:

AMOUNT OF BENEFITS PAID BY NATIONAL AND INTERNATIONAL UNIONS, 1928 TO 1930, BY TYPE OF BENEFIT

Type of benefit	1928	1929	1930
Sick.....	\$2,377,746.38	\$2,831,936.82	\$3,649,703.15
Death.....	16,623,585.93	17,598,287.03	18,527,095.00
Unemployment.....	665,279.88	276,717.50	3,311,279.50
Old age.....	4,712,731.29	4,883,027.88	5,910,995.41
Disability.....	3,825,578.46	2,707,187.63	3,234,066.93
Miscellaneous.....	5,149,052.60	3,945,287.63	2,064,839.57
Total benefits.....	<sup>1</sup> 32,818,924.54	<sup>1</sup> 32,242,444.40	36,697,979.56

<sup>1</sup> Not the sum of the items, but as given in the report.

In a number of instances the reports from national and international unions included benefits paid by affiliated local unions.

*National legislation.*—The report cites the following objectives of Federal laws of interest to labor, which were enacted since the 1930 convention: (1) Prevailing rates of wages on public buildings in the United States; (2) Saturday half holidays for nearly 600,000 Government employees without reduction of wages or salaries; (3) advance planning of public works to be undertaken during depressions; (4) the creation of a department of labor in Porto Rico; (5) extension of the vocational education act and the rehabilitation act to Porto Rico; (6) retirement provisions for Panama Canal and Panama Railroad employees; (7) adjustment of wages of certain employees in the Customs Service; (8) the appropriation of \$500,000 additional to increase the border immigration patrol; (9) an appropriation of \$178,000 to collect complete statistics of changes in employment, total wages paid, and total hours of employment in the service of the Federal Government, the States, and political subdivisions thereof; (10) modernization of three battleships in the Government navy yards at a cost of \$30,000,000; (11) requiring all work on 11 new destroyers at a cost of \$51,700,000 to be performed in the navy yards and arsenals when it does not cost appreciably more than by contract; (12) extra compensation for overtime service performed by immigration inspectors and other employees of the immigration service; (13) books for the adult mind; (14) an additional appropriation of \$500,000 for improving the United States Employment

Service; and (15) an increase of \$200 in the wages for railroad locomotive, Bureau of Safety, and hours of service inspectors.

*Injunction legislation.*—The immediate and foremost task before the Federation, the council asserts, is the securing of a Federal antiinjunction law.

*Child-labor amendment.*—The council urges State federations of labor in States that have not yet ratified the child-labor amendment to call for action upon it at the next session of their respective legislatures.

*Old-age security.*—While 17 of the States now have old-age pension laws, the council holds that none of these acts is wholly satisfactory and has drafted a bill "providing for old-age security with its administrative direction placed under the control of elected State officers selected by the legislatures."

*Older workers.*—The council reports that the business depression has increased the employment difficulties of older workers and urges that plans for taking care of the unemployed shall include provisions for such workers and that State bureaus of labor statistics continue their investigations concerning the employment of this problem group and formulate constructive measures in this connection.

*Bankers and wages.*—Higher wages, the council states, are necessary for the maintenance of an economic machine geared to high production. The council looks to American bankers to aid in getting money into circulation and supplying business undertakings with the required credit. The belief is expressed that bankers would be able to function more wisely "if they had regular and intimate contacts with production technicians and representatives of wage earners. Bankers, like every other group, must take into account their need to promote the welfare of the workers, as well as all other economic groups."

*The 5-day week.*—The 1931 report of the council gives 557,921 as the number of trade-union members with a 5-day week; the 1930 report, 514,679. In no case, according to information coming to the Federation's office, have the workers previously enjoying the 5-day week returned to either the 5½ or the 6 day week.

*Daily hours of work.*—The first convention of the Federation declared for an 8-hour day. Consideration is now being given by the organization to the possibility of a 6-hour day. The 1930 convention, in connection with a resolution to endorse a 5-day week, took the position that the shortening of the workday and workweek is an economic necessity.

*Extent of unemployment.*—According to the executive council, "if as large a proportion of wage earners are laid off from industrial plants this year as in normal years, we shall have 7,000,000 unemployed by January next year." The following figures are included in this section of the report.

## ESTIMATED AVERAGE MINIMUM UNEMPLOYMENT IN THE UNITED STATES, 1928 TO 1931

[Nonagricultural wage and salaried workers]

Year	Average minimum unemployment	Per cent unemployed
1928 <sup>1</sup>	2,707,000	9.2
1929 <sup>1</sup>	2,413,000	8.2
1930 <sup>1</sup>	4,267,000	14.5
1931 <sup>2</sup>	5,415,000	18.4

<sup>1</sup> Estimated from trade-union figures on basis of United States census of unemployment in January, 1931.<sup>2</sup> Eight months.PERCENTAGE OF UNEMPLOYMENT IN TRADE-UNIONS IN THE UNITED STATES, 1928 TO 1931 <sup>1</sup>

Month	1928	1929	1930	1931	Month	1928	1929	1930	1931
January.....	12.1	11.3	12.5	19.8	August.....	6.8	6.7	16.0	<sup>2</sup> 18.4
February.....	11.9	10.6	14.0	19.0	September.....	7.0	6.6	14.6	-----
March.....	11.8	8.5	13.6	18.1	October.....	7.2	7.3	14.1	-----
April.....	10.5	7.9	13.3	17.6	November.....	7.6	8.7	15.9	-----
May.....	9.1	6.7	13.3	17.1	December.....	10.0	10.3	16.6	-----
June.....	8.1	6.6	14.3	18.2	Average....	9.2	8.2	14.5	18.4
July.....	8.4	6.9	15.7	18.8					

<sup>1</sup> Weighted figures.<sup>2</sup> Preliminary.

*Unemployment prevention by coordinating economic development.*<sup>2</sup>—Declaring that our present knowledge is not sufficient “to plan the agencies or chart the functions of economic control,” the council expresses the conviction that national economic conferences will disclose the way. “We have, therefore, repeatedly urged upon the President of the United States that he call a national economic conference.” Included in the council’s suggestions for economic coordination are: The working toward full and open records by prescribed forms of cost and production accounting; a Federal labor board to render labor Federal aid and service comparable to that given to farmers and industry; the organization of workers in unions under their own control, participating in national planning; an effective organization of the labor market; vocational counsel and retraining, especially as means for coping with the problem of technological unemployment; the balancing of work time and wages against expanded productivity; and job security.

*Unemployment insurance.*—The following paragraph is indicative of the attitude of the council toward unemployment insurance:

Working men have arrived at the point where they are firmly of the belief that they are as much entitled to work security, to enjoy the opportunity to work, as the owners of capital are to returns from their investments. Labor demands that these principles be recognized and accepted by the employers of labor. Obviously, the owners and management of industry must decide as to whether working men and women shall enjoy the opportunity to work or whether as a result of the denial of this opportunity to work, industry shall have fastened upon it compulsory unemployment insurance legislation. It must be work or unemployment insurance. Working people must be privileged to earn a living or be accorded relief. If compulsory unemployment insurance is fastened upon

<sup>2</sup> For council’s emergency program for winter of 1931-32, see p. 40 of this issue of the Review.



our industrial, political, and economic life it will be because industrial ownership and management have failed to provide and preserve work opportunities for working men and women.

*Bituminous coal situation.*—The council is convinced that the fundamental requirements for the stabilization of the bituminous coal industry are: A complete organization of the men employed in such industry, the establishment of contractual relations between employers and employees by means of collective bargaining, and the adoption of an equitable wage scale which will operate to provide for a universal labor cost in coal production. The council pledges its support to the international union of the United Mine Workers of America in the development of plans and policies proposed by that organization as partial remedies, at least for the industrial ills affecting the coal industry.

*Other subjects.*—Among other matters taken up by the council are: Educational work, home building and home ownership, convict labor, taxation, the restriction of immigration, jurisdictional difficulties, modification of the Volstead Act, nonpartisan political policy, Pan American relations, Porto Rican and Philippine affairs, and problems of railway workers.

#### Decisions on Recommendations Concerning Unemployment

ONE of the most prolonged discussions at the Vancouver sessions was that on unemployment insurance. Three resolutions were introduced in favor of establishing a system of such insurance in the United States, one of these proposals being sponsored by a delegate of the American Federation of Teachers, one by delegates of the American Flint Glass Workers, and the third by a delegate of the Seattle (Wash.) Central Labor Union. These resolutions, however, were not concurred in and the report of the committee on resolutions was adopted, expressing emphatic approval of the executive council's position "that compulsory unemployment insurance legislation, such as is now in effect in Great Britain and Germany, would be unsuited to our economic and political requirements here and unsatisfactory to American working men and women."

Just preceding this action of the delegates on this matter the president of the federation made an address which included the following statements:

You can't have an unemployment insurance plan without employment exchanges. You can't have an unemployment insurance plan without registration. You must report, you must subject yourself in every way to the control of the law. And then, my friends, when the representatives of these unemployment exchanges are able to find you employment, when you are entitled to receive insurance benefits you must accept the employment they find you or give up your claim to unemployment insurance.

I believe that in some cities where our organization is struggling for existence the operation of that plan would destroy the union there, because if they find a union man a job in a nonunion plant he must choose as to whether or not he will accept the job in the nonunion plant or give up his unemployment insurance. That to me seems an unfair position to place a union man in in the United States of America.

Let us not weaken our economic strength, our economic power, but let us develop it, let us make ourselves strong before we engage in experimentation and inject into our movement, through the adoption of an unsafe policy not suited here, that which will pull at our vitals and destroy our trade-union structure.

With reference to that part of the executive council's report which deals with unemployment prevention by coordinating economic development, the committee on resolutions stated that "while we should strive to inaugurate such coordinated planning by the call of a national conference, \* \* \* we should not be unmindful of other calls having been or being made and conferences being arranged for that purpose. Indeed we must press forward the claim of organized labor for full and equal representation and participation in any and all conferences and calls made for the development of methods or means embracing national planning, related to such plans as have been outlined by the executive council." The committee voiced opposition to "the creation of any governmental agency that may have for its purpose or include in its objectives the shaping of labor policies. In considering the proposal for a Federal labor board we are not unmindful that considerable of the data sought to be had through such a board is already being gathered through different departments, especially through the Department of Labor."

With these and a few other modifications the committee approved this section of the council's report and the convention voted in favor of such approval.

The council's emergency unemployment program was also indorsed.<sup>3</sup>

#### Adopted Resolutions and Other Approved Recommendations

THE action of this convention on various recommendations and resolutions is summarized below:

*Government employment.*—The labor policy in the construction of Hoover Dam was criticized and the executive council of the federation was authorized to take action to improve the working conditions on such project. It was decided to endeavor to have the supplies used in the United States Government departments produced, when possible, in America under proper labor standards. A proposal was agreed upon that stone used in Federal building projects to relieve unemployment be prepared in localities where the buildings are erected.

Higher Government employment standards were favored as were also legislation restricting the competition of enlisted men in the Navy with civilian workers; legislation to provide that construction and repair work on naval vessels and parts thereof be done in Government navy yards and plants; legislation for a 5-day week in the Postal Service; proposals for employing American citizens for Government construction work in the Canal Zone; for requiring the use of American-produced materials on Government work and a Saturday half holiday in that locality; for making the Federal prevailing wage law applicable to all Federal projects; and for an amendment to liberalize the United States compensation act. Protest was made against the policy of the Quartermaster's Department of the United States Army of displacing American seamen with Filipinos and agreement was reached to oppose the personnel classification bill, the council seeing great danger in the passage of such legislation.

<sup>3</sup> See p. 40 of this issue of the Review.

*Working-day.*—Indorsement was given to legislation providing for a shorter work day for seamen and opposition was registered to a proposed amendment to the Constitution to reduce the length of the work day by law.

*Education.*—Approval was given to the recommendation of the committee on education that the executive council be authorized to appraise existing educational activities carried on directly or indirectly by the federation and be empowered to coordinate and consolidate all such activities as may promote the effective expansion and development of the labor movement in the future. The federation's support of vocational and continuation schools was reaffirmed. Compulsory full-time education to the age of 16 years and part-time education to the age of 18 for all children were favored. Members of the American Federation of Labor who are fathers or mothers of public-school children were urged to participate in the parent-teacher movement, and recommendations to improve the unemployment situation among teachers were approved. Discriminatory tactics in the employment of teachers was denounced and military training in the public schools was opposed.

*Immigration.*—The application of the exclusion law to Filipinos was favored and also the application of the quota provisions of the immigration law to Mexico.

*Porto Rico.*—A recommendation was approved that the president of the American Federation of Labor urge upon the President of the United States a correction of the economic conditions in Porto Rico by putting into effect the suggestions made in the report of the executive council.

*Philippines.*—The independence of these islands was favored.

*International matters.*—A proposal for the United States to participate in the general disarmament conference at Geneva in February, 1932, was favored. Another proposal for an effort to have the United States station unofficial observers in the International Labor Office at Geneva was referred to the executive council, which body was also called upon to give attention to the study of methods of promoting world peace.

*Miscellaneous.*—Provision for older workers in planning for the care of the unemployed was approved and also the executive council's report on the bituminous coal situation. A modification of the Volstead Act, the securing of a national cleared radio channel for WCFL, and the creation of a special committee to consider the interest of the labor press were favored and the sales tax was denounced. The enforcement of civil liberties in accordance with constitutional guaranties was demanded.

#### Reelection of Officers

WILLIAM GREEN was reelected president and Frank Morrison will again serve as secretary. The convention adjourned on October 15, having selected Cincinnati, Ohio, as the city for the annual meeting in 1932.



### Conference for the Protection of Migrants

THE eighth session of the Permanent Conference for the Protection of Migrants was held at Geneva, September 7 and 8, 1931. The delegates in attendance represented approximately 40 organizations in America, Europe, and Asia.<sup>1</sup>

The problem of emigrants returning without funds was taken up and a suggestion adopted that the system of transit cards in force for emigrants leaving European ports should also include the first-mentioned group. It was urged upon voluntary overseas associations to take care that returning emigrants be furnished before embarking with passports in proper order and with the funds needed for the whole journey, and to give advance notice of the arrival of such emigrants to the voluntary associations in the ports of landing.

Included in the action of the conference was the adoption of a report to be submitted to the International Labor Office. This document embodies the results of an inquiry among the member associations of the conference concerning the various recruiting systems and the execution of employment contracts, and also into the economic, social, and cultural position of immigrant workers. The conference stressed the importance of permitting voluntary associations to cooperate more and more regularly, but without loss of their independence, with the authorities, relative to the recruiting and placement of migrants. A decision was reached to ask the member associations for periodical data with reference to the openings for emigrants in the various countries.

The concluding discussion was on the question of the maintenance by emigrants of their family members who remain in the country of origin. The particular aspects of the situation in the United States and the perplexities of the whole problem were also examined, in view of the inquiry of the League of Nations into maintenance allowances, in which investigation the Conference for the Protection of Migrants is cooperating.

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### Workers' Cultural Federation

A GROUP association of labor cultural societies was recently formed in New York under the name of Workers' Cultural Federation, according to the September, 1931, issue of the Locomotive Engineers Journal. The 132 organizations included in the alliance were represented by 265 delegates. Of the affiliating groups, 31 were educational in character, 19 were dramatic, 12 literary, and 2 Esperanto. Six sport groups declared the right of physical culture to be included as a cultural branch and were backed by 2 dance groups. Ten large choral and 8 instrumental societies, 2 photo and film groups were also represented. Persons from 40 miscellaneous organizations participated in the sessions. Federations of a similar character are to be constituted in other cities, and the establishment of a national organization is contemplated.

<sup>1</sup> International Labor Office. Industrial and Labor Information, Geneva, Sept. 21, 1931, pp. 383-384.

### Japanese Labor Club

**A**T A MEETING in Kobe on June 25, 1931, the Japanese Labor Club was established. This new organization, according to Industrial and Labor Information of August 31, 1931, includes the following 11 trade-unions with a combined membership of 270,000, or approximately 75 per cent of the trade-union members in Japan:

The General Federation of Japanese Labor (*Nihon Rodo Kumiai Sodomei*), the General Federation of Workers in State Undertakings (*Kangyo Rodo Sodomei*), the Federation of Naval Arsenal Workers' Unions (*Kaigun Rodo Kumiai Renmei*), the Federation of Japanese Dockyard Workers' Unions (*Nihon Zosen Rodo Renmei*), the Japanese Seamen's Union (*Nihon Kaiin Kumiai*), the Merchant Marine Officers' Association (*Kaiin Kyokai*), the National Labor Union Federation (*Zenkoku Rodo Kumiai Domei*), the Confederation of Japanese Labor Unions (*Nihon Rodo Kumiai Sorengo*), the General Federation of Japanese Labor Unions (*Nihon Rodo Sorenmei*)<sup>1</sup>, the Union of Employees of the Tokyo Electric Light Co. (*Toden Jugyoin Kumiai*), and the Tokyo Gas Workers' Union (*Tokyo Gasuko Kumiai*).

In a communication to the International Labor Office it is stated that "the constitution of the Japanese Labor Club repudiates extremist principles and methods and supports the International Labor Organization." A decision was reached that the club should promote labor legislation (a trade-union bill, the regulation of working hours, the setting up of minimum wage rates, the legal recognition of trade agreements, unemployment measures, etc.).

Mr. K. Hamada, president of the Japanese Seamen's Union, will serve as the club's representative officer. It is also reported that the present development is "only a first step toward the unification of the Japanese trade-unions. There are still many signs of conflicts among member organizations, and a considerable effort will be required to place the new organization upon a sound basis."

<sup>1</sup> Formerly the Union of Workers in Osaka Arsenal, Kyoto Electric Co., etc. (known as *Jun Kojo Kai*).

# WORKERS' EDUCATION AND TRAINING

## Trade Training for Small Towns Outlined by Vocational Board<sup>1</sup>

**P**RACTICAL plans for providing trade preparatory training for boys and girls in small towns and cities to fit them for wage-earning employment, are discussed in a publication (Bulletin No. 157) just issued by the Federal Board for Vocational Education under the title, "Trade Preparatory Training for Small Cities and Rural Communities."

As evidence of the diversity of the types of courses which it is possible to set up in small communities, the board lists six of these. They include general industrial courses, which are organized to give training in a variety of occupations; cooperative part-time courses, in which students alternate between regular employment and instruction in schools; unit courses in county or State trade schools which are designed to give training in many or all phases of the work of a single trade, and serve a number of communities instead of only one; apprentice courses in which apprentices in various industries are trained in plants or are sent to a central school for intensive training; dull season courses for workers in "seasonal" trades; and industrial arts courses which deal with industrial equipment and materials.

The general industrial and the cooperative part-time courses, according to the Federal Board for Vocational Education, are best adapted to the employment and industrial conditions obtaining in most small towns or cities. The general industrial course trains for some specific occupation and is intended primarily for those who are still in school, and the part-time cooperative course is for those already employed who can devote part of their working hours to school instruction.

General industrial courses offer opportunity for training in such trades as automobile mechanics, electricity, machine-shop practice, bricklaying, plumbing, house wiring and carpentry, or combinations of these trades. For instance, courses in such allied occupations as automobile mechanics, electricity and machine-shop practice or in sheet-metal work, plumbing, and house wiring might very appropriately be combined.

As an example of a combination course which has proved effective, that offered in building construction in Lees Summit, Mo., is cited. Students in this course receive instruction in carpentry, millwork, sheet-metal work, and house wiring. Practical work in construction or remodeling residences, garages, and other buildings in the town or near-by community includes the carpentry, wiring, sheet-metal, and concreting jobs incident to such work.

<sup>1</sup> United States. Federal Board for Vocational Education. Press release No. 98, Oct. 5, 1931.



In the cooperative part-time type of courses are included those which train for a single trade, those which train for store and office practice, and those which train for a variety of occupations.

Special attention is directed by the board to the plan followed in some States, notably Connecticut, New Jersey, Kentucky, and North Dakota, of maintaining county or State trade schools where boys and girls from a number of communities may receive vocational training in industrial occupations. This plan applies particularly to sections where the need for workers in any one town is small and would not warrant organizing classes for a single town.

"It must not be forgotten," the Federal Board for Vocational Education declares, "that the vocational training needs of prospective industrial workers in small towns are as imperative as those living in the larger industrial centers. While the local demand in the smaller towns for additional workers in any one trade is not as great in the small towns as in the large ones, there are in practically every small community a number of desirable occupations for which some new workers are needed each year. The local employers prefer to employ and do employ local boys and girls whenever possible, but they feel the need for some plan of education which will help these young people to prepare for work that is to be done."

Commenting on the value of the general industrial courses for boys and girls who have not yet entered upon employment, the board directs attention to the fact that they are given as a part of the regular high school program and therefore enable the student to complete and graduate from the academic high-school course at the same time he is receiving training for an occupation—a distinct advantage in these times when employers are coming more and more to demand a high-school education certificate from those they employ.

# INDUSTRIAL DISPUTES

## Strikes and Lockouts in the United States in September, 1931

DATA regarding industrial disputes in the United States for September, 1931, with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

Table 1 shows the number of disputes beginning in 1927, 1928, 1929, and 1930, the number of workers involved and man-days lost for these years and for each of the months, January, 1930, to September, 1931, inclusive, as well as the number of disputes in effect at the end of each month and the number of workers involved. The number of man-days lost, as given in the last column of the table, refers to the estimated number of working-days lost by workers involved in disputes which were in progress during the month or year specified.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JANUARY, 1930, TO SEPTEMBER, 1931, AND TOTAL NUMBER OF DISPUTES, WORKERS, AND MAN-DAYS LOST IN THE YEARS 1927 TO 1930

Month and year	Number of disputes		Number of workers involved in disputes		Number of man-days lost in disputes existing in month or year
	Beginning in month or year	In effect at end of month	Beginning in month or year	In effect at end of month	
1927: Total.....	734		349,434		37,799,394
1928: Total.....	629		357,145		31,556,947
1929: Total.....	903		230,463		9,975,213
1930: Total.....	653		158,114		2,730,368
1930					
January.....	45	21	9,240	5,316	184,730
February.....	52	40	37,480	6,683	438,570
March.....	49	38	15,017	5,957	291,127
April.....	64	41	6,379	5,840	189,828
May.....	66	29	9,329	4,386	185,448
June.....	59	34	14,011	8,311	144,117
July.....	78	30	14,308	4,815	141,647
August.....	51	33	15,902	7,131	142,738
September.....	72	44	16,337	13,778	208,184
October.....	47	36	10,858	16,007	335,916
November.....	44	29	4,390	7,759	273,608
December.....	26	7	4,863	5,144	194,455
1931					
January.....	56	20	10,147	2,927	181,031
February.....	52	34	19,984	12,512	228,329
March.....	45	27	26,121	28,139	422,545
April.....	60	39	26,442	22,604	769,720
May.....	106	49	27,588	15,735	402,437
June.....	81	51	18,437	17,071	506,097
July.....	67	54	49,574	58,995	666,309
August <sup>1</sup> .....	81	58	10,059	21,667	1,217,397
September <sup>1</sup> .....	98	89	36,447	46,029	695,963

<sup>1</sup> Preliminary figures subject to change.

## Occurrence of Industrial Disputes, by Industries

TABLE 2 gives, by industry, the number of strikes beginning in July, August, and September, 1931, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN JULY, AUGUST, AND SEPTEMBER, 1931

Industrial group	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	July	August	September	July	August	September
Auto, carriage, and wagon workers.....		1			35	
Bakers.....		2	2		156	1,010
Broom and brush workers.....		1			90	
Building trades.....	15	16	17	2,383	1,124	742
Chauffeurs and teamsters.....	3	5	4	140	769	840
Clothing.....	13	22	16	32,981	4,017	1,637
Fishermen.....	1			350		
Food workers.....	1	1	3	95	84	725
Furniture.....	3	3	4	132	325	583
Iron and steel.....	2			75		
Jewelry workers.....	1	3		12	20	
Leather.....		1	2		100	305
Light, heat, power, and water.....	2	3		450	410	
Longshoremen and freight handlers.....	1	3	1	60	440	150
Lumber, timber, and mill work.....		2			60	
Metal trades.....	3	1	3	122	48	250
Mining.....	6	3	12	2,656	679	25,030
Motion-picture operators, actors, and theatrical workers.....	1	1	7	16	400	306
Printing and publishing.....	1	3		80	69	
Stone.....			1			200
Municipal workers.....		1			600	
Textiles.....	12	6	24	9,974	560	4,564
Tobacco.....		2			43	
Other occupations.....	2	1	2	48	30	105
Total.....	67	81	98	49,574	10,059	36,447

## Size and Duration of Industrial Disputes, by Industries

TABLE 3 gives the number of industrial disputes beginning in September, 1931, classified by number of workers and by industries.

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN SEPTEMBER, 1931, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIAL GROUPS

Industrial group	Number of disputes beginning in September, 1931, involving—					
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	1,000 and under 5,000 workers	20,000 workers and over
Bakers.....	1				1	
Building trades.....	5	9	3			
Chauffeurs and teamsters.....			3	1		
Clothing.....	3	8	5			
Food workers.....	1	1		1		
Furniture.....	1	2		1		
Leather.....		1	1			
Longshoremen and freight handlers.....			1			
Metal trades.....		2	1			
Mining.....		4	7			1
Motion-picture operators, actors, and theatrical workers.....	2	4	1			
Stone.....			1			
Textiles.....	4	8	9	3		
Other occupations.....		2				
Total.....	17	41	32	6	1	1



In Table 4 are shown the number of industrial disputes ending in September, 1931, by industries and classified duration.

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN SEPTEMBER, 1931, BY INDUSTRIAL GROUPS AND CLASSIFIED DURATION

Industrial group	Classified duration of strikes ending in September, 1931			
	One-half month or less	Over one- half and less than 1 month	1 month and less than 2 months	2 months and less than 3 months
Bakers.....	1			
Building trades.....	12		1	4
Chauffeurs and teamsters.....	4			
Clothing.....	9	1	2	
Food workers.....	2			
Furniture.....	2			
Jewelry workers.....	1			
Longshoremen and freight handlers.....	1			
Metal trades.....	3			
Mining.....	10			1
Motion-picture operators, actors, and theatrical workers.....	3			
Printing and publishing.....			1	
Municipal workers.....	1			
Textiles.....	3		1	2
Other occupations.....	2			
Total.....	54	1	5	7

#### Principal Strikes and Lockouts Beginning in September, 1931

*Metal workers, Pennsylvania.*—A strike of 600 metal workers, employed by the McKinney Manufacturing Co. at Pittsburgh, is reported to have begun on September 1, because of a wage reduction of 5 per cent and unsatisfactory working conditions. No report of the ending of this strike has been received.

*Crab-meat pickers, Maryland.*—A strike of 640 crab-meat pickers, cooks, and packers, mostly colored women, is reported to have begun at Crisfield on September 7, because of a wage reduction from 35 to 25 cents per gallon for picking out crab meat. This strike ended on September 21, the workers accepting the new wage fixed by the employers.

*Hosiery workers.*—A number of strikes, principally among silk hosiery workers, in New Jersey, occurred during the latter part of September as a protest against the inauguration of a new national labor agreement for the organized workers of the industry, carrying with it wage reductions ranging from 30 to 45 per cent, which became effective September 21. This agreement was formally signed in Philadelphia on October 7 by the contracting parties—the Full-Fashioned Hosiery Manufacturers of America (Inc.), an association consisting of some 60 manufacturers in various sections of the country, and the American Federation of Full-Fashioned Hosiery Workers, an organization affiliated with the American Federation of Labor through membership in the United Textile Workers of America.

The agreement provides for the arbitration of all disputes, and Dr. George W. Taylor of the University of Pennsylvania has been chosen impartial arbitrator for the industry to serve for the term of one year.

It is understood that the majority, if not practically all, of these so-called outlaw strikes, totaling some 8,000 workers, ended by October 12 with the wage reduction being accepted by the workers.

*Anthracite miners, Pennsylvania.*—Between 5,000 and 6,000 miners, employed by the Glen Alden Coal Co., in the Wyoming region, went out on strike September 24 in response to a strike order by the general grievance committee of the miners, composed of insurgent members of the United Mine Workers, against the wishes of district and national officials of the union.

It was said that on Monday, September 28, the picket lines established by the insurgents at the various collieries became so threatening and kept so many men away from work that company officials decided to close most of the operations until the trouble could be settled peaceably. On September 29 reports were to the effect that some 20,000 or more men were on strike. Accordingly the following order was issued and copies were posted at the collieries that were to suspend:

Under the contract between the United Mine Workers of America and the Glen Alden Coal Co. there is to be no strike within the period of contract. Employees of this company having taken it upon themselves to interfere with operations and to close down this colliery in violation of said contract, notice is hereby given that operations will not be resumed until the management is assured that operations can be carried on in an orderly way and with full respect for provisions of said contract.

On October 9 the grievance committee voted in favor of having the men return to work on October 12, the international officials of the union having given assurance, it is said, that the grievances would be adjusted as soon as the men were back at work.

The company announced through its vice president that its mines would be reopened Monday, October 12, upon assurances by union leaders that the workers would abide by the contract.

*Candy makers, New York.*—Loft (Inc.), candy and ice cream manufacturers in Long Island City, were affected by a strike of some 2,000 employees beginning on September 28, when the company undertook to increase the working week from 48 to 60 hours without any increase in pay. An agreement was reached on September 29 that the company would return to the 48-hour week.

#### Principal Strikes and Lockouts Continuing into September, 1931

*Silk workers, New Jersey.*—The strikes of July 22 and July 27, involving some 8,000 textile workers, still continue in part. Announcement was made by the strike leaders of the Amalgamated Association of Silk Workers and the United Textile Workers on October 5 that 1,000 operatives in 10 shops were still on strike. Press reports, however, have since indicated that practically all of the mills have reached some agreement with the workers who are nearly all back at work.

## Conciliation Work of the Department of Labor in September, 1931

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 74 labor disputes during September, 1931. These disputes affected a known total of 39,666 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

On October 1, 1931, there were 50 strikes before the department for settlement and in addition 25 controversies which had not reached the strike stage. The total number of cases pending was 75.



LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF SEPTEMBER, 1931

Company or industry and location	Nature of dispute	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Hangar building, Squantum, Mass.	Controversy	Building crafts	Common labor not receiving prevailing wage.	Adjusted. Laborers received prevailing wage—70 cents per hour.	1931 Aug. 28	1931 Aug. 31	---	---
Building, Albuquerque, N. Mex.	Threatened strike.	Carpenters and lathers.	Jurisdiction	Adjusted. Jurisdiction satisfactorily settled.	Aug. 20	---do---	12	---
Springfield Railway Co., Springfield, Ohio.	Controversy	Street-railway workers.	Wages cut 10 per cent.	Adjusted. Accepted wage cut; further negotiations.	Aug. 28	Sept. 4	80	---
Painters, Wilmington, Del.	do	Painters	Proposed further wage cut.	Adjusted. Accepted 5 cents per hour cut to be restored when business warrants.	Sept. 1	---do---	118	---
Branch River Wool Combing Co., North Smithfield, R. I.	Strike	Wool combers	Asked wage increase and 48-hour week instead of 54.	Adjusted. Allowed as asked.	Aug. 5	Aug. 26	300	---
Noble Dress Co. (Inc.), New York City.	do	Dressmakers	Asked increase	Unclassified. Plant moved and business discontinued.	Aug. 13	Sept. 1	22	---
Edwin Cigar Co., New York City.	do	Cigar makers	Protest wage rates and conditions.	Pending	Aug. 24	---	35	16
James S. Duncan (Inc.), New York City.	do	Millinery workers	Protest piecework cuts	Adjusted. Withdrew proposal to cut; allowed some increases.	Aug. 27	Aug. 31	47	9
Corona Shirt & Blouse Manufacturers, Corona, L. I., N. Y.	do	Shirt and blouse makers.	Asked 44-hour week and recognition of union; working conditions.	Adjusted. Allowed as asked; all returned.	Aug. 11	Aug. 17	350	---
Post-office building, Pomona, Calif.	Controversy	Bricklayers	Wages of bricklayers cut by subcontractor.	Adjusted. Bricklayers to receive \$11 per day.	Aug. 13	Aug. 21	22	40
Post-office building, Newburgh, N. Y.	Strike	Building mechanics	Asked prevailing rate of wages.	Unable to adjust.	Aug. 24	Sept. 25	100	---
Boulder Dam, Las Vegas, Nev.	Lockout	Tunnel workers	Wages cut. Asked 8-hour day and improved working conditions.	Unclassified. Settled before commissioner's arrival.	Aug. 7	Aug. 21	125	1,200
Medical Building, Jersey City, N. J.	Controversy	Bricklayers and ironworkers.	Jurisdiction	Adjusted. Ironworkers waived jurisdiction of work in dispute on this job only.	Aug. 18	Aug. 26	40	100
McKinney Manufacturing Co., Pittsburgh, Pa.	Strike	Employees	Wages cut 5 per cent; working conditions.	Pending	Sept. 1	---	600	---
Stanley-Warner theaters, Philadelphia, Pa.	do	Musicians	Reduction of force from 115 to 50.	do	Sept. 9	---	135	---
Veterans' Hospital, Camp Custer, Mich.	Controversy	Laborers and ironworkers.	Wages and working conditions	Adjusted. Union conditions and \$1.10 per hour for ironworkers.	Sept. 1	Sept. 12	4	28
Chicago Building Cleaners and Window Washers, Chicago, Ill.	Threatened strike.	Window washers and cleaners.	Proposed wage cut	Adjusted. Agreed to continue at \$1.25 per hour until March 1, 1932.	Sept. 8	Sept. 9	400	---
Theatrical Transfer Owners' Assn., New York City.	Strike	Drivers.	Renewal of agreement; working conditions.	Adjusted. Allowed as requested.	Sept. 1	---do---	120	---

Chicago Building Cleaners and Washers, Chicago, Ill. Theatrical Transfer Owners' Assn., New York City.	Threatened strike.	Window washers and cleaners. Drivers.	Woolen textile workers. Cabinet makers and carvers.	Alleged proposal to cut wages.	Unadjusted. No cut was contemplated.	Aug. 24	Aug. 25	Sept. 9	400
Wakefield Textile Co., South Kensington, R. I. 12 furniture shops, New York City.	do.	do.	do.	Asked 10 per cent increase and 44-hour week.	Adjusted. Allowed 10 to 15 per cent increase in shops; 44-hour week allowed certain workers.	Aug. 8	Aug. 19	do.	250
Anderson Shop, New York City.	do.	do.	Jewelry workers.	Wages and conditions.	Adjusted. Compromised; work divided without discrimination.	Aug. 31	Sept. 15	7	2
C. J. Engel, New York City.	do.	do.	Millinery workers.	Cut in piecework rates; asked recognition of M. W. I. U.	Unable to adjust. Strikers replaced by others.	Sept. 4	Oct. 8	43	9
Painters, Scranton, Pa.	do.	do.	Painters.	Wages cut from \$9 to \$7 per day.	Pending.	Sept. 9	do.	100	do.
Veterans' Hospital, Canandaigua, N. Y.	Controversy	do.	Ironworkers.	Protest the use of laborers on road work.	Adjusted. Jurisdiction satisfactorily settled; union rates to be paid.	Sept. 7	Sept. 25	4	300
Bonnaz embroidery workers, Greater New York.	Strike	do.	Embroidery workers.	Asked \$8 per week increase and 35-hour week in dull season.	Adjusted. Allowed 44-hour week; minimum scale of \$45 per week and 8 holidays.	Sept. 9	Sept. 9	1,000	250
A. H. Rosen, New York City.	do.	do.	Millinery workers.	Wage cuts and shop conditions.	Unable to adjust. Strike called off and workers replaced by others.	Sept. 4	Oct. 8	46	7
Raincoat manufacturers, New York City.	do.	do.	Raincoat workers.	Wages and sending work out of shop.	Adjusted. Former 15 per cent cut restored; work to be done in New York shop.	Aug. 31	Sept. 1	1,000	100
Bathrobe makers, 21 shops, New York City.	do.	do.	Bathrobe makers.	Wages, hours, and conditions.	Adjusted. Three shops settled; allowed 10 per cent increase and 44-hour week.	Sept. 1	Sept. 10	350	do.
Veterans' Hospital, Indianapolis, Ind.	do.	do.	Painters.	Question as to whether Indianapolis or Chicago scale should be paid.	Adjusted. Difference in wage scales placed in escrow until question is decided.	Aug. 31	Sept. 9	20	100
Workers in "Radio City," New York.	do.	do.	Dynamiters, drillers, steam-shovel men and truckmen.	Asked overtime pay.	Adjusted. Overtime eliminated; 8-hour day in effect.	Sept. 4	Sept. 8	125	100
Heat and cool insulators, Pittsburgh, Pa.	do.	do.	Heat and cool insulators.	Renewal of agreement; employers demand cuts.	Pending.	Sept. 9	do.	(1)	do.
Theater Managers' Association, Pittsburgh, Pa.	do.	do.	Musicians.	Reduction in number of operators; readjustment of wage rates; renewal of contract.	do.	Sept. 8	do.	34	do.
Willow Valley Coal Co., West Terre Haute, Ind.	Controversy	do.	Miners.	Discharge of two miners.	Adjusted. Discharged men returned; commissioner to act as arbitrator.	Sept. 14	Sept. 17	2	7
Federal building, Key West, Fla.	do.	do.	Carpenters.	Contractor not paying prevailing scale.	Adjusted. Prevailing scale to be paid—80 cents per hour.	Sept. 7	do.	30	30
Ideal Construction Co., Bay City, Mich.	do.	do.	Structural-iron workers.	Asked union conditions and prevailing wages.	Pending.	Sept. 10	do.	30	do.
Building, Camp Custer, Mich.	do.	do.	Laborers.	Failure to pay prevailing wage scale.	Adjusted. Laborers increased from 40 to 45 cents per day.	Sept. 1	Sept. 12	50	do.
Military Reservation, Camp Custer, Mich.	do.	do.	do.	do.	do.	do.	Sept. 7	25	do.
Crab pickers, Crisfield, Md.	do.	do.	Crab-meat pickers.	Wages cut from 35 to 25 cents per gallon.	Returned at cut rate.	Sept. 7	Sept. 21	640	do.
Post-office building, Warren, Pa.	Strike	do.	Ironworkers.	Ironwork sublet to nonunion contractor.	Pending.	Sept. 13	do.	7	50
Burk Bros. Tannery, Philadelphia, Pa.	Controversy	do.	Leather workers.	Wages cut 10 per cent.	do.	Sept. 14	do.	500	do.

1 Not reported.

LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF SEPTEMBER, 1931—Continued

Company or industry and location	Nature of dispute	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Dan Dee Frock Co., New York City.	Strike	Dressmakers	Asked increase on piecework, 40-hour week, and union recognition.	Adjusted. Allowed 10 per cent increase, 40-hour week, union recognition, and equal division of work.	Sept. 8	Sept. 14	21	5
Veterans' Hospital, Indianapolis, Ind.	do	Glaziers	Wage scale and employment of local men.	Adjusted. Equal division of work between Indianapolis and Chicago men; wages under discussion.	Sept. 9	do	5	115
Beaver Pants Co., Carbondale, Pa.	do	Pants makers	Low wage returns	Adjusted. Beaver Co. left the city; new company now operating plant.	do	Sept. 18	30	---
Phoenix Manufacturing Co., Catasauque, Pa.	do	Employees	Wage rates reduced 10 per cent.	Adjusted. Accepted cut; conditions improved.	Sept. 1	Sept. 25	125	---
Downtown Neckwear Assn., New York City.	do	Neckwear workers	Violation of collective agreement and renewal of same.	Adjusted. Union agreement signed.	Sept. 10	Sept. 22	400	---
Hat makers, New York City	do	Hat workers	Asked union conditions, recognition, and improved conditions.	Pending	Sept. 3	---	40	10
Film-theater operators, Pittsburgh, Pa.	do	Operators	Number of men to be employed.	do	Sept. 15	---	34	---
Good Samaritan Hospital, Dayton, Ohio.	do	Lathers, plasterers, hod carriers.	Wages cut 27½ per cent.	Adjusted. Accepted 20 per cent cut until May 1, 1932.	Sept. 8	Sept. 22	50	---
Walter Reed Hospital, Washington, D. C.	Threatened strike.	Laborers	Wages not paid on account of elimination of subcontractor.	Adjusted. Men to be paid at once.	Aug. 19	Sept. 21	4	22
Starr Silk Mill, Danville, Pa.	Strike	Silk workers	Wages cut 15½ per cent; also payment of 10 cents per week for ice water.	Adjusted. Committee appointed to investigate and fix rates of wages; ice furnished by company.	Sept. 14	Sept. 22	50	---
Building, Des Moines, Ia.	do	Building	Wage cuts to be effective October 1.	Pending	Sept. 18	---	1,800	---
Broom Manufacturers' Assn., Chicago, Ill.	Lockout	Broom makers	Producers asked wage cut and adjustment of competition in 200-mile radius of Chicago.	do	do	---	90	60
John Bromley & Sons, Philadelphia, Pa.	Threatened strike.	Lace workers	Wages cut 10 per cent.	do	Sept. 1	---	8	330
Alden Coal Co., Scranton, Pa.	Strike	Miners	Wages for new vein	Unclassified. Settled by international union officials.	Sept. 23	Oct. 9	(1)	---
West Albion Slate Quarry Co., Pen Argyll, Pa.	do	Quarry workers	Wages cut 10 per cent.	Adjusted. Company withdrew cut.	Sept. 16	Oct. 10	200	---
A. B. Blank, Des Moines, Iowa.	do	Theater operators	Number of men to each booth	Adjusted. All returned; wages cut 25 per cent.	Sept. 24	Oct. 5	35	35
Leon Neckwear Co. and Gellies Neckwear Co., New York City.	do	Neckwear workers	Companies refused to renew union agreements.	Adjusted. Wages cut 10 per cent; agreement signed.	Sept. 18	Oct. 3	70	---

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## INDUSTRIAL DISPUTES

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25 per cent. Adjusted. agreement signed.	Wages cut 10 per cent.	Sept. 18	200	180
Companies refused to renew union agreements.	Discussion of prevailing wage rates.	Building trades.	Controversy.	Neckwear workers.
Adjusted. Bricklayers, plasterers, \$1.50; terrazzo workers and tile setters, \$1.25; painters, carpenters, plumbers, steamfitters, and electricians, \$1; and carpenters' helpers 50 cents per hour.	Adjusted. No cuts, former conditions and scale continued.	Sept. 23	Sept. 28	18
Pending.	Pending.	do.	do.	30
do.	do.	do.	do.	1,200
Adjusted. Cuts restored but workers asked recognition of union; allowed and workers returned.	Adjusted. Cuts restored but workers asked recognition of union; allowed and workers returned.	Sept. 24	Oct. 2	125
Adjusted. Proposal to cut with- drawn; recognition not allowed.	Adjusted. Proposal to cut with- drawn; recognition not allowed.	Sept. 8	Sept. 17	29
Adjusted. Proposal to cut with- drawn; recognition not allowed; all returned except 3.	Adjusted. Proposal to cut with- drawn; recognition not allowed; all returned except 3.	do.	do.	15
Pending.	Pending.	Sept. 28	do.	700
Adjusted. Accepted 20 per cent cut and returned.	Adjusted. Accepted 20 per cent cut and returned.	Sept. 23	Oct. 5	200
Adjusted (terms not yet received).	Adjusted (terms not yet received).	Sept. 29	Sept. 29	3
Adjusted. Company agreed on 54 hours for men and 51½ hours per week for women.	Adjusted. Company agreed on 54 hours for men and 51½ hours per week for women.	Sept. 28	Sept. 30	2,000
Pending.	Pending.	Sept. 30	Sept. 30	20,000
Adjusted. Fixed rate at 50 cents per hour.	Adjusted. Fixed rate at 50 cents per hour.	Sept. 29	Oct. 7	(1)
Unclassified. Workers accepted cut before arrival of commissioner.	Unclassified. Workers accepted cut before arrival of commissioner.	Sept. 28	Sept. 30	(1)
Pending.	Pending.	Sept. 10	do.	(1)
do.	do.	Sept. 22	do.	700
do.	do.	Sept. 28	do.	(1)
Total.	Total.	35,005	4,661	

1 Not reported.

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# FAMILY ALLOWANCES

## Family Allowances in New Zealand, 1930-31

THE claims lodged for family allowances in New Zealand under the act providing such benefits totaled 1,727 in the year ending March 31, 1931, according to the thirty-third annual report of the Pensions Department of that country. In addition, there were 142 claims outstanding from the preceding year, bringing the total dealt with to 1,869. Of these, 1,399 were accepted and 191 rejected. Of the latter claims, 102 were cases in which the family income exceeded the limit permitting the head of the family to benefit under the act. Two hundred and thirty-six new claims from Maoris were finally dealt with during the year, of which claims 187 were granted and 49 were rejected.

There were 23,033 children in the families covered by the 4,617 allowances in force March 31, 1931, 13,799 of these children being in families where there were more than two children. The average number of children per family was 4.98.

The total amount disbursed in allowances during the year was £63,608 (\$309,548) and the total annual value of all allowances in force at the close of the year was £69,930 (\$340,314). Based on the latter figure the average allowance per annum was £15 2s. 11d. (\$73.71) or slightly under 6s. (\$1.46) per week—the maximum for 3 children.

The weekly allowance rates of the 1,399 families whose claims were accepted in the year under review were as follows:

Weekly rate	Number of families	Weekly rate	Number of families
1s. (\$0.24) -----	6	8s. (\$1.94) -----	147
2s. (\$0.49) -----	405	10s. (\$2.43) -----	75
3s. (\$0.73) -----	7	12s. (\$2.92) -----	30
4s. (\$0.97) -----	429	14s. (\$3.41) -----	18
5s. (\$1.22) -----	2	16s. (\$3.89) -----	5
6s. (\$1.46) -----	273		
7s. (\$1.70) -----	2	Total -----	1,399

The weekly incomes of the 1,399 families receiving allowances are given below:

	Number of families
£1 (\$4.87) and under -----	48
Over £1 (\$4.87) to £2 (\$9.73) -----	180
Over £2 (\$9.73) to £3 (\$14.60) -----	387
Over £3 (\$14.60) to £4 (\$19.47) -----	749
Over £4 (\$19.47) -----	35
Total -----	1,399

The distribution of the 1,399 families according to number of children in excess of 2 is shown in the following statement:

	Number of families
1 child.....	381
2 children.....	443
3 children.....	282
4 children.....	150
5 children.....	81
6 children.....	37
7 children.....	19
8 children.....	6
Total.....	1, 399



# WOMEN AND CHILDREN IN INDUSTRY

## Earnings of Woman Workers in a Small City of New York State, 1930 and 1931

AS A SUPPLEMENT to its study of the trend of women's earnings in New York City (see Labor Review, June, 1931, p. 66), the division of women in industry in that State has made an inquiry into the earnings, hours, and working conditions, in the summers of 1930 and 1931, of woman wage earners in an up-State industrial city with a population of between 25,000 and 50,000. The study was made during the period July 8 to July 11 of this year, and the findings are published in the August issue of the Industrial Bulletin, the official publication of the New York State Department of Labor.

From the files of the bureau of factory inspection a list was secured of 23 plants employing the largest number of women, together with their inspection figures as of 1930 and 1931. These showed a decided drop in the number of workers employed, which was especially noticeable among men. Warning is given, however, "that these plants represent the women-employing industries and any figures on male employment are secondary findings, necessarily incomplete."

Not all of the 23 plants were in operation at the time of the inquiry, but pay-roll data were secured from 11, which in 1931 employed 698 women. Similar facts were secured from the largest department store in the city, employing 163 women at the time of the study, and from a chain store with 58 woman employees.

The pay-roll data consisted of a list of all the women working a selected week in June or July, 1931, together with the operations which they performed, their rate of pay and weekly earnings, and the hours worked that week. For purposes of comparison, the same information was then secured for the corresponding week in 1930.

The comparative figures for the two years are as follows:

AVERAGE WEEKLY HOURS AND EARNINGS, 1930 AND 1931, OF WOMEN IN A NEW YORK UP-STATE CITY

Type of establishment	Number of women on pay roll		Average weekly earnings		Weekly hours of majority of women	
	1930	1931	1930	1931	1930	1931
Cigars.....	316	281	\$17.57	\$16.59	Piecework.	Piecework.
Department store.....	169	163	17.51	16.84	48	48
Men's clothing.....	(1)	139	<sup>1</sup> 15.64	12.34	40	44½
Neckwear.....	110	117	11.84	14.91	41	44½
Chain store.....	59	58	12.12	11.41	48½	47¾
Dresses.....	(2)	52	<sup>3</sup> 14.61	<sup>3</sup> 12.21	Piecework.	Piecework.
Laundry.....	37	33	15.09	16.46	49½	49½
Cleaning and dyeing.....	31	32	13.09	14.19	No report.	No report.
Printing.....	16	13	11.02	12.16	44	40
Paper boxes.....	12	12	12.46	14.08	<sup>4</sup> 36	<sup>4</sup> 41
Laundry.....	(5)	10	(5)	10.33	(5)	49½
Beverages.....	9	9	<sup>6</sup> 20.00	<sup>6</sup> 21.25	Piecework.	Piecework.

<sup>1</sup> Pay-roll figures for 1930 include only 130 women, who were still employed in 1931.

<sup>2</sup> Total number of women missing; records for 34 operators only.

<sup>3</sup> Comparison based on pay roll for operators only; 37 operators in 1931, 34 operators in 1930.

<sup>4</sup> All the women employed worked the same hours.

<sup>5</sup> Figures for 1930 missing.

<sup>6</sup> Not an average; all women earned the same amount.

The \* \* \* table shows that there were fewer women employed in 1931 than in 1930 in both of the mercantile establishments, the cigar factory, a laundry, and a printing establishment. On the other hand there were more women on the 1931 pay roll of the neckwear plant and the cleaning and dyeing establishment. The number employed in the box factory and the beverage plant remained the same both years. Although the trend in number of women employed seems to be downward, the average weekly earnings rose in 1931 in six of the plants and went down in only four. In one case where the earnings went higher, the rise was definitely due to increased output. Unfortunately the plants where the average earnings dropped were among the largest in the city, being the cigar factory, both mercantile establishments, and the dress factory. In all, these plants employed 554 women.

### Working Hours of Women and Young Persons in Japan

THE hours of attendance of children under 16 years of age and women in factories under the Japanese factory act are at present restricted to 11 per day, including one hour of rest.<sup>1</sup> The employment of such persons for 12 hours daily, including one hour of rest, was allowed exceptionally in spinning mills and in factories making woven silk goods for export, "specified for the purpose by the prefectural governor," and in factories usually employing not more than 10 persons but which engage in weaving or doubling with the use of power-driven machinery. The date of the expiration of this exemption was August 31, 1931; and from September 1, 1931, the hours of attendance of children under 16 and of women in factories coming under the provisions of the factory act are restricted, with no exceptions, to 11, including one hour for rest. The spinning mills which are affected by the expiration of the exceptional provisions are those working one shift, and in November, 1930, such establishments numbered only 19. The majority of spinning mills operate on two shifts and do not come under the exception. Factories manufacturing woven silk goods for export availed themselves of the exemption and are, therefore, affected by the new situation. The most seriously affected factories, however, are those usually employing not more than 10 persons but which use power-driven machinery in weaving or doubling. There are approximately 13,000 of these factories in Japan, employing about 56,000 workers.

### Family Responsibilities of Woman Wage Earners in South Africa

AT THE annual congress of the South African Association for the Advancement of Science, held in Grahamstown in July, 1931, Miss H. P. Pollak read a paper on the contributions to family support of woman industrial workers on the Witwatersrand. In its issue for August 24, 1931, *Industrial and Labor Information* gives a summary of the facts she presented.

There were, she stated, 4,629 women industrially employed, the greater number being engaged in the manufacture of clothing, in the preparation of food, in printing, and in the leather industry. Questionnaires were sent to 1,891 women working in factories which she had visited personally, and replies were received from 450. Of these

<sup>1</sup> International Labor Office. *Industrial and Labor Information*, Geneva, Sept. 7, 1931, pp. 337-338.

66.8 per cent were single women living with their parents; 19.8 per cent were single and living with relatives or friends; 1.3 per cent were single and living independently; 5 per cent were married and living with their husbands; and 7 per cent were widowed, separated, or divorced. More than half were under 20 years of age. The average wage was 37.7s. (\$9.17) per week, ranging from 26.3s. (\$6.40) in the food industry to 49.08s. (\$11.94) in printing.

Of the 343 women workers living in family groups, 18.39 per cent were the sole wage earners and in 34 per cent of the cases there was no male earner. Where there were male wage earners a male was the chief wage earner in 140 cases, or 59.9 per cent. In these cases the woman's contribution was seldom more than 30 per cent of the total income.

In 6.1 per cent of the cases a woman was the chief wage earner although there were male wage earners in the family, usually young brothers.

Thus, in 40 per cent of the families women were chief wage earners, 34 per cent having no male breadwinners at all. Including the 112 independent women, in 50.7 per cent of all cases there was absolutely no dependence on the earnings of men. Of those living in family groups, nearly one-fifth were sole wage earners; the burden thus included the support of one or more total dependents.



## LABOR AWARDS AND DECISIONS

### Report of an Investigation of the Coal Industry of Colorado by the Industrial Commission of Colorado

THE Industrial Commission of Colorado decided to investigate the coal industry after the Alamo Coal Co., Barbour Coal Co., Oakdale Coal Co., Temple Fuel Co., Vickers Coal Co., Bear Canon Coal Co., Pryor Coal Co., Caliente Coal Co., Mutual Coal Co., Calumet Coal Co., Empire Coal Co., and the Huerfano Coal Co., producers of bituminous coal, operating in Las Animas and Huerfano counties, had filed with the commission a 30-day notice of their intention to make a reduction in the wages of their employees. A few days later seven of these companies filed petitions with the commission, signed by their employees, waiving the 30-days' notice and requesting the companies to resume operations at the reduced scale of wages.

The investigation was made under the general powers of the commission, and especially under the power granted in section 26 of the industrial law of Colorado. Hearings were held at Walsenburg, Trinidad, Florence, Crested Butte, Lafayette, and Denver. The report of the commission covers the hearings at Walsenburg and Trinidad.

At these hearings the employers named above contended that the competition of gas and oil, and of coal mined at a much lower cost in the mines of Kansas, Kentucky, and Arkansas, which coal is sold in the competitive fields, and the unjust competition in freight rates made it necessary to reduce the cost in production of coal if they were to operate their mines at a profit. To reduce the cost of production it was necessary to reduce the wages of their employees. As another reason for wage reduction, the attention of the commission was called to the fact that common labor on Boulder Dam received a wage of \$4 a day. The State of Colorado had established a minimum of \$5 a day upon State highways, and the city and county of Denver paid \$5 a day in the mountain parks.

The report of the commission on its investigation of the coal industry of Colorado, dated September 3, 1931, is as follows:

It is the opinion of the commission that the wages paid at the Boulder Dam, on the State highways, and by the city and county of Denver, is not a fair comparison and should, in no manner, be compared with the wages paid to coal miners.

The record of this investigation shows that the average coal miner only worked 164 days last year, and only a trifle over 183 days per annum as an average for the last 10 years, whereas the employees to which the attention of the commission is called, were employed on every working-day.

Another thing that should be taken into consideration is the fact that coal mining is one of the most hazardous and dangerous employments in the State of Colorado. It is so dangerous that old-line companies writing compensation insurance refuse to accept coal miners as a risk. Men engaged in coal mining under these conditions are entitled to a far better wage than the occupations to which our attention has been called by the president of the Alamo Coal Co.

The representatives of labor organizations contend that the reduction of wages will not increase the demand for coal or increase the number of days worked in the mines. They contend that the people will not purchase any more coal than they need because it is cheaper. During the time the coal mines have been paying the scale of \$6.52 per day, the operators have been able to meet competition and have sold their coal and are still selling coal in the same territory. That one of the reasons that more coal was not sold during the last winter was due to the fact that the weather was mild, making the purchase of more coal unnecessary, and that people bought all the coal they needed, and would not have purchased any more whatever the price might have been.

On November 21, 1929, President Hoover invited the representatives of labor, agriculture, business, transportation, and finance to confer with him on the industrial situation and discuss methods that would promote prosperity and offset the recent slump in Wall Street. Among those who attended the conference called by the President were representatives of the largest corporations in this country and the presidents of the national labor organizations.

At this conference the President of the United States requested the representatives of labor and capital present to concur in a statement prepared which reads as follows:

"The President was authorized by the employers who were present at this morning's conference to state on their individual behalf that they will not initiate any movement for wage reduction, and it was their strong recommendation that this attitude should be pursued by the country as a whole. They considered that aside from the human considerations involved, the consuming power of the country will thereby be maintained.

"The President was also authorized by the representatives of labor to state that in their individual views and that as their strong recommendation to the country as a whole that no movements beyond those already in negotiation should be initiated for increase of wages and that every cooperation should be given by labor to industry in the handling of its problems. The purpose of these declarations is to give assurance that conflicts should not occur during the present situation which will affect the continuity of work and thus to maintain stability of employment."

The commission has received a number of applications for an increase in wages since the time the President called the above conference, and has refused every application of this kind.

We believe it to be a very serious mistake to reduce wages at this time when we are suffering from the most serious industrial and financial panic in the history of our country. The coal companies are evidently taking advantage of the widespread unemployment situation that prevails throughout the land.

The operators in the bituminous-coal fields of southern Colorado were the first to reduce the wages of their employees and thereby force the operators in other parts of this State operating bituminous-coal mines to reduce their wages in like amount in order to meet this unfair competition.

Since this application was made for a reduction in wages by these companies, a favorable decision has been rendered by the Interstate Commerce Commission in freight rates. This should help some. If the price of coal is increased at any time the operators should return to the present wage scale of \$6.52 per day. This is only fair to the employees.

When we take into consideration the number of days a coal miner works per annum, and the danger of the employment, the present wage scale is not sufficient and it is to be regretted that the employee should be required to sell his labor at a lower price. Labor should be the first charge against any industry and the welfare of the wage earner should be the first consideration of every employer. \* \* \* Reduction of salaries and wages of employees will delay the return of better times because a reduction in wages or salaries will destroy the purchasing power of the wage earner.

The commission finds in our investigation that with one exception in this State, the coal miners have no method of collective bargaining. Many of the employers belong to an association of employers where they talk over matters of common interest and at times act together in a common cause as they seem to have done in this case.

It is the opinion of this commission that these employers had an understanding on the proposed wage reductions and acted together in these matters after an agreement and understanding had been reached.

It is to be regretted very much that the employees do not have some method of collective bargaining where they could get together and protect their rights. It would be well if both the employers and the employees had organizations of their own. Experience has shown that it is not to the best interests of the employees to leave their welfare exclusively in the hands of the employer. While it is true that many of the employers protect the interests of their employees, there are others who do not. The only safe and sure protection for the employee to protect his rights consists of his ability to bargain collectively.

Labor organizations are as much the product of modern industrial life as the corporation. There was a time when the individual workman could bargain with his employer on something like equality. Industrial development has reached a point where it is impossible, in many cases, for the employee to deal as an individual with his employer. In some cases, the employer is a corporation with large amounts of invested capital and hundreds of employees. Under these conditions, it is impossible for the individual workman to bargain on an equal basis. In such a case, it is no bargain at all. The individual workman can accept the conditions named by the employer or look for other employment. Very little freedom of contract can exist between a man who has nothing but his labor to sell and the employer who can do without the labor of any particular individual. Freedom of contract under such conditions is little more than an idle dream, because of the self-evident inequality.

Under date of May 15, the president of the Alamo Coal Co. wrote the commission a letter, which in part reads as follows:

"An informal comment of one of the commissioners at the hearing touched on the question of the commission being of the opinion that it had no right to waive the 30-day notice, even where the testimony showed there was no dispute between the employer and employee respecting wages or working conditions.

"In this connection I desire to call your attention to a decision or award or order terminating jurisdiction entered in the matter of the Oakdale Coal Co. against its employees, said award bearing date of January 5, 1922. In that award findings of fact were made upon which the award or order was based, one of these findings of fact being that no protest had been filed herein by any of the employees of the several employers. Proceeding on that, we felt that further investigation would be a useless procedure.

"Your commission is a judicial body and in determining discretionary matters should and does proceed on lines similar to those in the courts. Therefore, your order or award above cited (as well as several others in the history of the commission) constitutes precedents which should be followed by the commission. Upon such precedents, the employers and employees are guided when new cases arise. In matters at issue warranting the proposed wage reduction of the Oakdale Coal Co., Alamo Coal Co., and Barbour Coal Co., said companies and their counsel have proceeded in reliance upon the former decisions and awards of your commission. Whatever testimony crept into your hearings concerning the relationship of these three companies with their employees indicated absolutely 100 per cent that there is no dispute or controversy between said companies and their employees at the present time and that the procedure adopted by the three companies above named was in accordance with the repeated construction of the law of your commission."

The secretary of the Bear Canon Coal Co. writes the commission as follows:

"This company has, at all times, tried to obey the law and comply with all directions of the Industrial Commission; and in this case, we have done absolutely nothing contrary to the decisions heretofore rendered, above mentioned. And we have had no notice of any change or new interpretation of the law, under which the rulings of the commission were based, and if your commission now place a different construction than that formerly held and under which we have proceeded, we request that you find that this company was not at fault in following the rules, regulations, and interpretations of the law as heretofore promulgated by the commission."

The chairman of the commission wrote the Attorney General for an opinion regarding the above matters and the reply of the Attorney General is as follows:

"We note that it is the opinion of the commission that petitions or agreements signed by the employees when such petitions were circulated by the superintendents or other officials of the company or placed in the company office or company store for the men to sign indicate that such agreements were procured to be signed by coercion and intimidation. However, it is suggested in your communication on this matter that 'No direct evidence of intimidation or coercion was introduced at these hearings.'



"We beg leave to advise that it is our opinion that the petitions constitute an agreement or contract between the employees and employers in the companies referred to as to the wage scale to be put into effect from and after the date of the agreement and constitute a valid contract unless vitiated by the method of procuring the signing of the same. If you have no affirmative evidence of intimidation or coercion, or more properly speaking of duress, there is nothing upon which the commission could act in determining that these agreements are not valid and proper.

"As to your request for an opinion as to whether either the employees or employer can waive the 30-days' notice provided by section 29 of the industrial law of Colorado, beg leave to advise that the provisions of this section are for the purposes of conferring jurisdiction upon the commission of every dispute between employee and employer affecting conditions of employment, or with respect to wages or hours, and if such jurisdiction is assumed then it is to continue until after final hearing of such dispute.

"The language of this section and its entire purpose and intent, taken in connection with the other provisions of the act, are for the purpose of conferring upon the industrial commission jurisdiction to hear and determine any controversy or dispute between employer and employee when the employer upon notice attempts to put into effect a change in the wage scale or working conditions, and the right of the commission to assume jurisdiction and to hold a hearing upon such subject depends upon whether or not there is in fact a dispute between the interested parties relative to the proposed change. In other words, the existence of an actual dispute is a prerequisite and the essential element of the jurisdiction of the commission under such conditions.

"The right of the employees and the employer to enter into a valid contract as to changes in wage scales is an incident to the constitutional rights of both parties. The liberty [to] enter into contracts by which labor may be employed in such way as the laborer shall deem most beneficial, and of others to employ such labor, is necessarily included in the constitutional guaranty of our citizenship. \* \* \*

"Therefore, in the absence of direct proof that the contracts or agreements between the employer and employees have been procured in some unlawful manner, any statute which attempted to set aside, modify or impair such agreements would be in violation of both the Constitution of the State of Colorado and of the United States.

"Section 29 of the industrial law, however, does not invade or affect this constitutional right, in so far only as it gives the commission jurisdiction to hear and determine, disputes. But the disputes must be real. If your records show concord or agreements, that is the very opposite of controversy or dispute. It is our opinion, therefore, that the industrial commission would be without jurisdiction, under the provisions of section 29, to conduct a hearing or render a decision affecting the situation as disclosed by the notice, petitions, etc., submitted in your letter.

"Answering your request for an opinion as to whether or not the companies referred to complied with the industrial law of the State by following the precedents established in 1922, evidenced by the orders heretofore entered by this commission, beg leave to advise that your commission is a quasi-judicial body and its rulings and orders are in effect the statement of the proper interpretation and construction of the industrial law as considered and determined by the commission at the time of the promulgation of the orders referred to. For the purpose of surrounding the commission's rulings with the dignity and weight which such an order should carry and stabilizing the industrial conditions under which employees and employers in the State carry on business in attempted compliance with the law, we feel that it would be desirable that such rulings should be considered as precedents, unless manifestly absurd or clearly contrary to law, for the guidance of both employees and employers in the conduct of their affairs.

"Answering your queries specifically we would be constrained to hold that an employer who procured a ruling of the commission upon a given state of facts would be justified in following such ruling with the exceptions heretofore noted.

"This general principle is followed by the courts of the land and should, so far as possible, be a guide and rule for quasi-judicial bodies, as a matter of public policy."

This commission is of the opinion that the employer was not at fault in following the precedent established by the decisions of this commission in 1921 and 1922. However, we are of the opinion that the decisions to which our attention has been

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called by the employer was a mistake. Hereafter, it will be the rule and order of this commission that employers and employees shall give the industrial commission, and the one to the other, at least 30 days' prior written notice of an intended change affecting conditions of employment and with respect to wages or hours.

Coal mining is a seasonable occupation. There are too many coal mines and too many coal miners for the industry in Colorado. This condition has caused overdevelopment and overproduction, and as a result, the average miner does not work over 183 days per annum. This is neither the fault of the employer nor the employee but the result of the condition.

We regret very much that the employers thought it necessary to reduce wages of their employees at a time of widespread unemployment. It is our opinion that the employers of this country should have followed the advice of the President and his advisers, to which attention is called in this report. Prosperity would return much sooner if some attention had been paid to the recommendation of the President and his committee.

Superintendents, foremen, and other officials of any company should not be permitted to circulate petitions among their employees for any purpose whatsoever. It certainly looks too much like intimidation. The average employee, without any funds, as is usually the case with a coal miner with a family to support, will sign any petition presented to him for that purpose by any of the company officials. The employee will sign because he is afraid he might lose his job if he does not comply with the company's request.

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### Awards

#### **Train Dispatchers—Chicago & North Western Railway Co.**

A BOARD of arbitration created by written agreement between the American Train Dispatchers Association and the Chicago & North Western Railway Co., dated July 14, 1931, was composed of William Walliser and B. E. Terping, named by the carrier, and J. G. Luhrsen and O. H. Braese, named by the employees, and Henry Horner and Paul Samuell, appointed as neutral arbitrators by the United States Board of Mediation.

On September 22, 1931, the board made its awards on the four questions submitted for decision. A summary of the awards is not given, as these disputes were such as are usually settled by adjustment boards and concerned the compensation of individuals only.

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#### **Stonecutters, Bricklayers, and Carpenters—Colorado Springs**

ON SEPTEMBER 24, 1931, the Protheroe Construction Co. notified the Industrial Commission of Colorado that 30 days after date a reduction would be made in the wages of certain of its skilled employees.

At a hearing held October 2, 1931, the employer contended that a reduction in wages would stimulate business and that "he expected outside capital to come into Colorado Springs and start building operations." The employer stated that, if the union would accept the reduction offered, the company would return to the present wage scale March 15, 1932.

The employees contended that wages were cut in Denver in 1921, which did not stimulate business, and that no increase in building operations in the city followed the reduction in wages. The secretary of the carpenters' union testified that carpenters in Colorado Springs

had, for nine months during this year, made average earnings of \$640.80, or a monthly average of \$71.20. He further testified that this is the average of 31 carpenters employed, and is a fair average for carpenters employed in Colorado Springs.

On October 6, 1931, the commission made the following award:

After hearing the evidence and giving it careful consideration the commission is of the opinion that a reduction in wages at this time of general depression will destroy the purchasing power of the great mass of people and will retard the return of better times.

Therefore, it is the award and decision of the commission that the reduction of wages by the employer herein be and the same is hereby disapproved.

The commission further finds that a contractor can file with the commission a notice of reduction of his employees, but can not file such notice in behalf of his subcontractors. In other words, an employer can give notice of a reduction in wages covering his employees only and not the employees of another.

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### Decisions

#### Wages of Operating Engineers—Colorado

ON SEPTEMBER 18, 1931, the Industrial Commission of Colorado held a hearing in the matter of the Tailors' Protective Cleaning & Dyeing Corporation of Denver and the International Union of Operating Engineers, Local No. 1.

The employer contended that a petition had been filed with the commission, signed by all employees, agreeing to accept a reduction in wages, which should become effective on August 31, 1931; he also contended that the commission was without jurisdiction to act because the petition constituted a contract between the company and the employees.

The representatives of the union contended that in all cases 30 days' notice must be given to the commission and to the employees of any intended reduction in wages or changes in hours or working conditions.

The commission rendered the following opinion and decision on September 19, 1931:

The industrial commission law of this State provides that "employers and employees shall give to the industrial commission and the one to the other at least 30 days' prior written notice of an intended change affecting conditions of employment or with respect to wages or hours." The employers herein did not give the notice as required by law.

Therefore, it is the decision and order of the commission that the employer reinstate wages from the 31st day of August, 1931, to and including September 19, 1931.

We regret very much that the employer finds it necessary to reduce the wages of its employees. We believe it is a mistake at this time of general business depression, and that such actions will retard the return of prosperity.

The reduction in wages is not approved by this commission.



## LABOR TURNOVER

### Labor Turnover in American Factories, September, 1931

THE Bureau of Labor Statistics presents herewith September labor turnover rates for manufacturing as a whole and for 10 separate manufacturing industries.

The form of average used for compiling turnover rates is the weighted arithmetic mean. The indexes for manufacturing as a whole are compiled from reports mailed to the bureau from representative establishments in over 75 industries, employing approximately 1,250,000 people. In the 10 industries for which separate indexes are presented reports were received from representative plants employing approximately 25 per cent of the employees as shown for such industries by the Census of Manufactures of 1927. In the automobile industry schedules were received from firms employing over 250,000 people; plants reporting for boots and shoes employed nearly 100,000 people; for brick nearly 18,000 people; for cotton nearly 125,000 people; for foundry and machine shops approximately 150,000 people; for furniture nearly 30,000 people; for iron and steel over 200,000 people; for men's clothing about 40,000 people; for sawmills about 40,000 people; and for slaughtering and meat packing about 75,000 people.

In addition to the quit, discharge, lay-off, total separation, and accession rates, the bureau presents the net turnover rate. Net turnover means the rate of replacement; it is the number of jobs that are vacated and filled per 100 employees. In a plant that is increasing its force the net turnover rate is the same as the separation rate, because while more people are hired than are separated from their jobs the number hired above those leaving is due to expansion and can not be justly charged to turnover. On the other hand, in a plant that is reducing its number of employees the net turnover rate is the same as the accession rate, for while more people are separated from the pay roll than are hired the excess of separations over accessions is due to a reduction of force and therefore can not be logically charged as a turnover expense.

Previous to September, 1931, the bureau had been presenting turnover rates on both a monthly and an equivalent annual basis. Beginning with this month, however, monthly rates only will be shown. To determine the equivalent annual rate, multiply the monthly rate by the number of times that the days of the current month are contained in the 365 days of the year; that is, in a 30-day month, to obtain the equivalent annual rate multiply the monthly rate by 12.17; in a 31-day month multiply the monthly rate by 11.77; and in a 28-day month multiply the monthly rate by 13.04. To obtain the equivalent annual rate for September, multiply the monthly rates as shown in Tables 1 and 2 by 12.17.

Table 1 shows for all industries the total separation rate, subdivided into the quit, discharge, and lay-off rates, together with the accession rate and the net turnover rate.

TABLE 1.—AVERAGE LABOR TURNOVER RATES IN SELECTED FACTORIES IN 75 INDUSTRIES

Monthly Rates

Month	Separation rates								Accession rate		Net turn-over rate	
	Quit		Lay-off		Discharge		Total					
	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931
January.....	1.85	0.74	2.70	1.95	0.54	0.19	5.09	2.88	3.95	2.97	3.95	2.88
February.....	1.60	.74	2.50	1.75	.62	.20	4.72	2.69	3.94	2.82	3.94	2.69
March.....	1.94	.94	2.83	1.75	.60	.26	5.37	2.95	4.15	3.67	4.15	2.95
April.....	2.11	1.14	2.57	1.96	.53	.31	5.21	3.41	3.55	3.06	3.55	3.06
May.....	2.01	1.12	2.68	2.43	.48	.28	5.17	3.83	3.28	2.79	3.28	2.79
June.....	1.85	1.02	3.00	3.84	.46	.23	5.31	5.09	2.92	2.41	2.92	2.41
July.....	1.35	1.10	4.17	3.32	.32	.25	5.84	4.67	2.51	3.02	2.51	3.02
August.....	1.40	1.05	3.99	2.40	.36	.22	5.75	3.67	2.71	2.60	2.71	2.60
September.....	1.50	1.16	3.14	4.22	.36	.24	5.00	5.62	3.27	3.58	3.27	3.58
October.....	1.29	-----	2.88	-----	.32	-----	4.49	-----	2.56	-----	2.56	-----
November.....	.90	-----	2.77	-----	.24	-----	3.91	-----	2.05	-----	2.05	-----
December.....	.84	-----	2.74	-----	.21	-----	3.79	-----	2.13	-----	2.13	-----
Average.....	1.55	-----	3.00	-----	.42	-----	4.97	-----	3.08	-----	3.08	-----

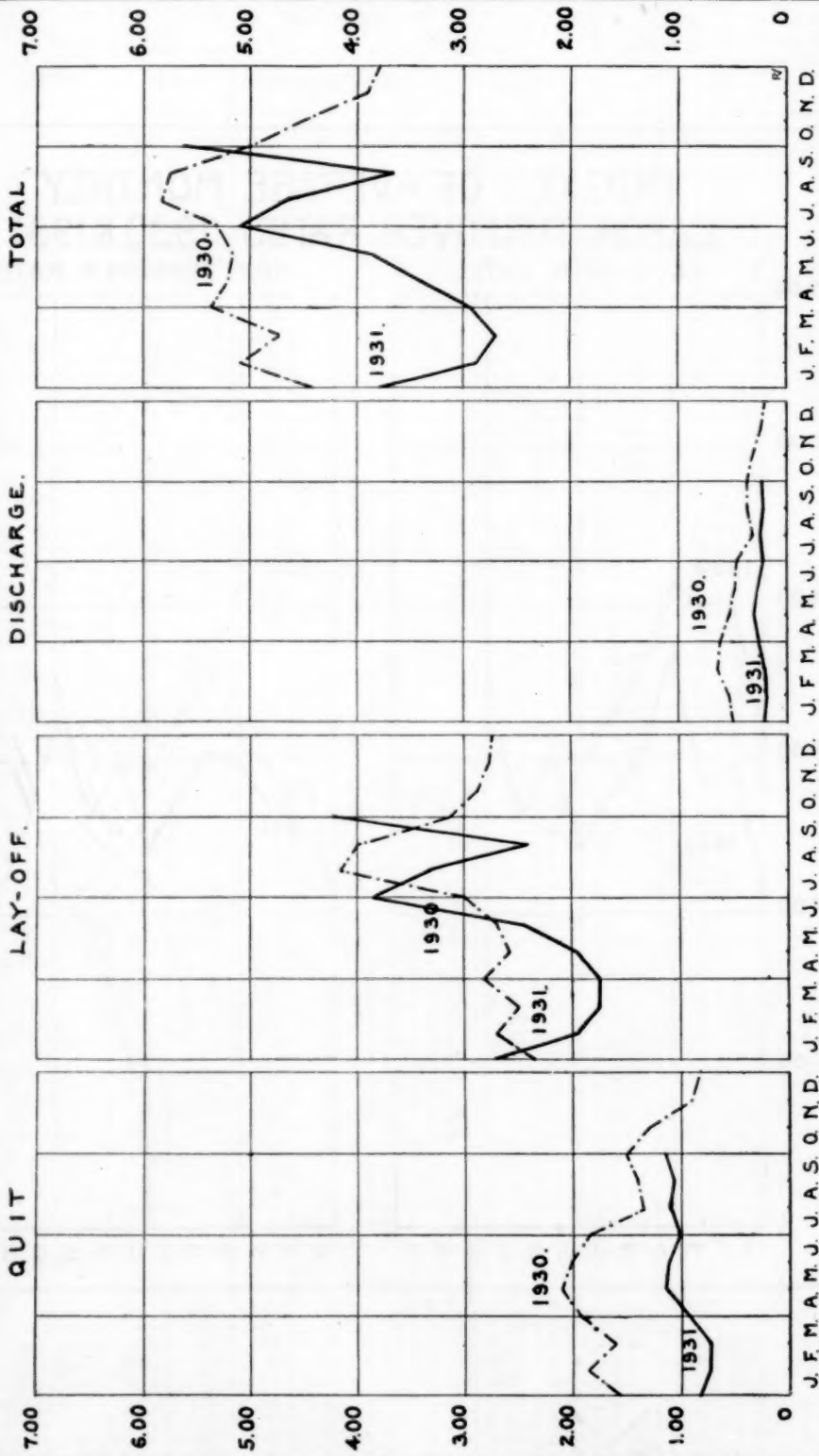
There was an increase in the quit, discharge, lay-off, and accession rates comparing September, 1931, with August, 1931. Comparing September, 1931, with September, 1930, there was a decrease in the quit and discharge rates. There was a rise in both the lay-off and accession rates however.

The charts following show in graphic form the data presented in Table 1.

Table 2 shows the quit, discharge, lay-off, accession, and net turn-over rates for automobiles, boots and shoes, cotton, iron and steel, foundry and machine shops, furniture, sawmills, and slaughtering and meat packing for the year 1930, and for the first eight months of the year 1931; and for brick and men's clothing for the months of April to September, 1931, inclusive.

# INDEXES OF AVERAGE MONTHLY LABOR TURNOVER RATES, 1930 & 1931

## SEPARATION RATES.





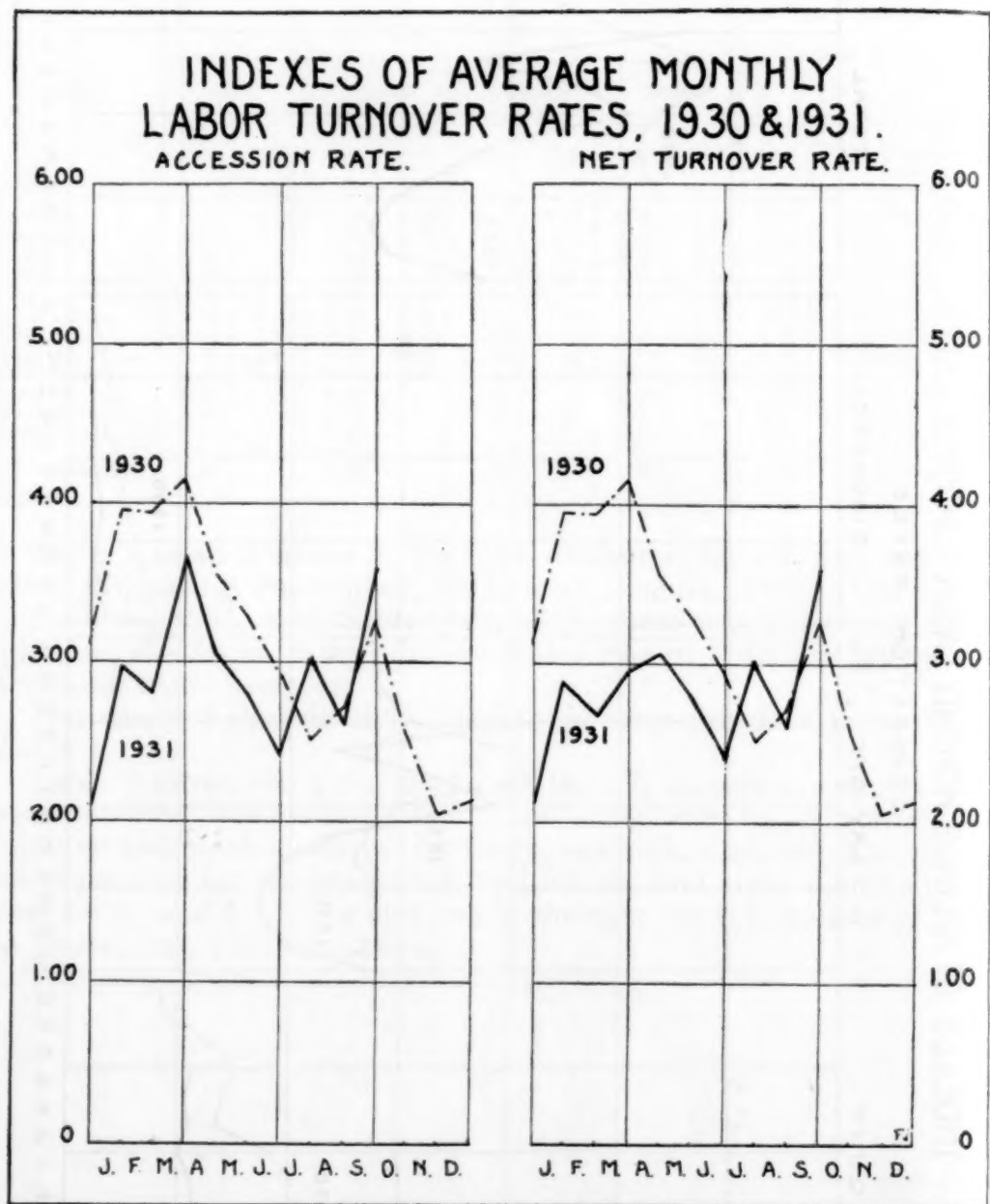


TABLE 2.—AVERAGE LABOR TURNOVER RATES IN SPECIFIED INDUSTRIES

## Monthly Rates

Industry and month	Separation rates								Accession rate		Net turn-over rate	
	Quit		Discharge		Lay-off		Total					
	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931
Automobiles:												
January.....	2.76	0.54	0.92	0.18	5.81	2.63	9.49	3.35	13.50	2.92	9.49	2.92
February.....	1.16	.74	.38	.21	2.31	1.71	3.85	2.66	4.74	4.12	3.85	2.66
March.....	1.81	1.09	.56	.39	2.04	1.71	4.41	3.19	6.92	7.76	4.41	3.19
April.....	2.21	1.46	.50	.44	1.97	1.86	4.68	3.76	7.45	5.21	4.68	3.76
May.....	2.20	1.40	.50	.39	5.59	3.07	8.29	4.86	3.98	3.41	3.98	3.41
June.....	1.59	.90	.39	.21	5.90	10.57	7.88	11.68	2.34	2.91	2.34	2.91
July.....	1.14	.99	.24	.33	9.48	6.89	10.86	8.21	2.78	4.12	2.78	4.12
August.....	1.23	1.10	.38	.30	7.66	3.48	9.27	4.88	3.69	2.88	3.69	2.88
September.....	1.29	1.00	.33	.21	7.42	12.54	9.04	13.75	3.83	5.16	3.83	5.16
October.....	1.19	-----	.25	-----	5.39	-----	6.83	-----	4.02	-----	4.02	-----
November.....	.81	-----	.16	-----	3.80	-----	4.77	-----	5.95	-----	4.77	-----
December.....	.88	-----	.17	-----	3.69	-----	4.74	-----	3.43	-----	3.43	-----
Average.....	1.52	-----	.40	-----	5.09	-----	7.01	-----	5.22	-----	5.22	-----
Boots and shoes:												
January.....	1.97	1.23	.78	.37	1.27	1.88	4.02	3.48	5.97	4.48	4.02	3.48
February.....	1.93	1.27	.70	.31	1.37	1.23	4.00	2.81	3.09	5.88	3.09	2.81
March.....	2.00	1.58	.65	.50	1.34	1.16	3.99	3.24	3.18	4.92	3.18	3.24
April.....	2.48	1.97	.68	.42	2.13	1.53	5.29	3.92	2.76	4.34	2.76	3.92
May.....	2.06	1.57	.53	.49	2.47	2.37	5.06	4.43	3.19	4.95	3.19	4.43
June.....	1.94	1.61	.47	.40	1.82	1.85	4.23	3.86	3.78	5.18	3.78	3.86
July.....	2.04	2.27	.57	.53	1.76	1.40	4.37	4.20	4.74	7.16	4.37	4.20
August.....	2.19	2.18	.73	.44	2.84	1.80	5.76	4.42	4.08	4.15	4.08	4.15
September.....	2.01	2.30	.51	.43	2.78	2.94	5.30	5.67	2.99	2.00	2.99	2.00
October.....	1.71	-----	.47	-----	2.73	-----	4.91	-----	2.05	-----	2.05	-----
November.....	1.00	-----	.27	-----	4.38	-----	5.65	-----	2.41	-----	2.41	-----
December.....	1.03	-----	.24	-----	3.88	-----	5.15	-----	3.66	-----	3.66	-----
Average.....	1.86	-----	.55	-----	2.40	-----	4.81	-----	3.49	-----	3.30	-----
Brick:												
April.....	-----	.86	-----	.61	-----	4.01	-----	5.48	-----	8.68	-----	5.48
May.....	-----	1.77	-----	.66	-----	8.65	-----	11.08	-----	7.89	-----	7.89
June.....	-----	.80	-----	.44	-----	5.45	-----	6.69	-----	6.67	-----	6.67
July.....	-----	.93	-----	.50	-----	7.90	-----	9.33	-----	6.02	-----	6.02
August.....	-----	.80	-----	.33	-----	7.64	-----	8.77	-----	7.72	-----	7.72
September.....	-----	1.34	-----	.33	-----	8.66	-----	10.33	-----	4.39	-----	4.39
Cotton manufacturing:												
January.....	2.07	1.00	.65	.40	2.16	2.60	4.88	4.00	4.50	3.57	4.50	3.57
February.....	1.98	1.00	.60	.34	1.92	1.87	4.50	3.21	3.33	3.91	3.33	3.21
March.....	2.27	1.36	.69	.36	2.20	2.00	5.16	3.72	4.17	4.47	4.17	3.72
April.....	2.40	1.64	.68	.43	2.23	2.52	5.31	4.59	4.27	4.69	4.27	4.59
May.....	2.36	1.53	.55	.37	2.07	2.30	4.98	4.20	3.95	3.51	3.95	3.51
June.....	2.06	1.25	.58	.46	2.17	2.24	4.81	3.95	3.25	2.66	3.25	3.66
July.....	1.91	1.48	.55	.40	3.34	3.07	5.80	4.95	2.47	4.62	2.47	4.62
August.....	1.58	1.57	.46	.38	3.58	2.29	5.62	4.24	2.72	4.70	2.72	4.24
September.....	1.88	1.65	.46	.36	2.44	2.38	4.78	4.39	4.58	4.36	4.58	4.36
October.....	1.41	-----	.48	-----	2.09	-----	3.98	-----	4.34	-----	3.98	-----
November.....	1.22	-----	.35	-----	2.18	-----	3.75	-----	2.93	-----	2.93	-----
December.....	.58	-----	.24	-----	1.92	-----	2.74	-----	1.46	-----	1.46	-----
Average.....	1.81	-----	.52	-----	2.36	-----	4.69	-----	3.50	-----	3.47	-----
Foundries and machine shops:												
January.....	-----	.52	-----	.22	-----	2.32	-----	3.06	-----	2.93	-----	2.93
February.....	1.36	.55	.80	.22	2.03	2.10	4.19	2.87	4.39	2.96	4.19	2.87
March.....	1.88	.90	.88	.25	3.24	2.72	6.00	3.87	4.63	3.38	4.63	3.38
April.....	1.88	.96	.80	.36	2.87	3.29	5.55	4.61	3.95	3.08	3.95	3.08
May.....	1.87	.77	.79	.25	4.12	4.91	6.78	5.93	3.76	2.44	3.76	2.44
June.....	1.29	.69	.54	.25	4.52	4.44	6.35	5.38	3.05	1.95	3.05	1.95
July.....	1.11	.68	.43	.20	4.58	4.71	6.12	5.59	2.26	2.63	2.26	2.63
August.....	1.01	.55	.45	.22	4.08	3.78	5.54	4.55	2.56	2.20	2.56	2.20
September.....	1.07	.70	.44	.30	3.82	3.13	5.33	4.13	2.45	3.04	2.45	3.04
October.....	.85	-----	.47	-----	4.01	-----	5.33	-----	2.27	-----	2.27	-----
November.....	.66	-----	.22	-----	2.87	-----	3.75	-----	1.85	-----	1.85	-----
December.....	.55	-----	.26	-----	3.10	-----	3.91	-----	2.05	-----	2.05	-----
Average.....	1.23	-----	.55	-----	3.57	-----	5.35	-----	3.02	-----	3.02	-----

TABLE 2.—AVERAGE LABOR TURNOVER RATES IN SPECIFIED INDUSTRIES—Continued

## Monthly Rates—Continued

Industry and month	Separation rates								Accession rate		Net turn-over rate	
	Quit		Discharge		Lay-off		Total					
	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931
Furniture:												
January		0.55		0.25		4.84		5.64		5.24		5.24
February		.57		.34		3.86		4.77		5.51		4.77
March		.80		.37		4.52		5.69		4.78		4.78
April	1.73	.95	0.64	.51	4.38	3.31	6.75	4.77	3.34	4.66	3.34	4.66
May	1.26	1.05	.52	.25	4.39	5.72	6.17	7.02	2.87	3.81	2.87	3.81
June	1.44	1.06	.41	.43	4.33	4.83	6.18	6.32	3.82	4.89	3.82	4.89
July	1.21	.81	.40	.30	4.50	3.83	6.11	4.94	5.09	5.62	5.09	4.94
August	1.18	1.13	.41	.31	3.45	3.03	5.04	4.47	5.34	4.89	5.04	4.47
September	1.09	.94	.46	.26	3.30	2.95	4.85	4.15	7.07	5.77	4.85	4.15
October	1.03		.45		3.61		5.09		3.72		3.72	
November	.99		.29		5.92		7.20		2.48		2.48	
December	.68		.35		6.66		7.69		2.35		2.35	
Average	1.18		.44		4.50		6.12		4.01		4.01	
Iron and steel:												
January	1.81	.71	.45	.09	1.24	1.36	3.50	2.16	5.52	2.52	3.50	2.16
February	1.91	.72	.34	.15	1.15	1.03	3.40	1.90	5.09	2.24	3.40	1.90
March	1.91	.71	.45	.12	1.22	1.38	3.58	2.21	4.06	2.03	3.58	2.03
April	2.26	.89	.42	.15	1.32	1.90	4.00	2.94	3.88	1.69	3.88	1.69
May	2.13	.87	.40	.15	1.71	2.16	4.24	3.18	3.25	1.57	3.25	1.57
June	1.87	.86	.49	.11	2.25	2.65	4.61	3.62	2.56	1.20	2.56	1.20
July	1.54	.94	.24	.12	2.29	1.74	4.07	2.80	2.27	2.32	2.27	2.32
August	1.61	1.03	.26	.10	2.05	2.67	3.92	3.80	1.91	.94	1.91	.94
September	1.45	.79	.22	.08	2.16	1.66	3.83	2.53	2.32	1.41	2.32	1.41
October	1.13		.20		2.25		3.58		1.74		1.74	
November	1.11		.13		1.95		3.19		1.31		1.31	
December	.82		.10		2.23		3.15		1.40		1.40	
Average	1.63		.31		1.82		3.76		2.94		2.94	
Men's clothing:												
April		1.40		.12		2.20		3.72		3.22		3.22
May		1.39		.15		1.46		3.00		3.10		3.00
June		1.32		.23		.56		2.11		4.05		2.11
July		1.12		.23		.97		2.32		4.16		2.32
August		1.30		.12		1.51		2.93		3.05		2.93
September		1.27		.12		1.26		2.65		1.74		1.74
Sawmills:												
January	3.80	.97	1.18	.43	4.52	8.02	9.50	9.42	9.39	9.99	9.39	9.42
February	3.39	1.22	1.37	.50	3.99	4.56	8.75	6.28	9.11	7.44	8.75	6.28
March	3.89	1.74	1.47	.51	3.54	4.56	8.90	6.81	7.91	7.07	7.91	6.81
April	4.28	1.79	.92	.46	4.97	7.17	10.17	9.42	9.66	7.21	9.66	7.21
May	3.51	1.73	1.35	.50	8.10	6.43	12.96	8.66	10.09	7.97	10.09	7.97
June	2.93	1.13	.96	.33	5.35	8.70	9.24	10.16	5.85	6.41	5.85	6.41
July	2.68	1.35	1.07	.32	6.98	5.35	10.73	7.02	6.17	4.53	6.17	4.53
August	3.01	2.03	.93	.95	6.09	6.01	10.03	8.99	6.71	5.81	6.71	5.81
September	2.99	1.45	.95	.49	7.64	8.09	11.58	10.03	6.93	5.95	6.93	5.95
October	2.26		.72		6.58		9.56		8.32		8.32	
November	1.93		.83		7.23		9.99		4.96		4.96	
December	1.39		.93		7.42		9.74		4.51		4.51	
Average	3.01		1.06		6.03		10.10		7.47		7.47	
Slaughtering and meat packing:												
January	2.32	1.29	.91	.61	6.68	4.40	9.91	6.30	10.02	9.50	9.91	6.30
February	2.37	1.56	.96	.68	7.70	6.48	11.03	8.72	7.39	5.02	7.39	5.02
March	2.49	1.41	.86	.37	7.51	6.88	10.86	8.66	5.23	5.19	5.23	5.19
April	2.91	1.42	.75	.47	4.47	5.02	8.13	6.91	8.47	6.31	8.13	6.31
May	2.84	1.35	.79	.43	4.14	4.13	7.77	5.91	9.01	6.92	7.77	5.91
June	2.72	1.36	.88	.52	4.59	3.90	8.19	5.78	10.34	6.08	8.19	5.78
July	2.08	1.38	.79	.49	5.34	5.59	8.21	7.46	6.92	6.46	6.92	6.46
August	2.09	1.18	.72	.39	5.14	4.56	7.95	6.13	6.34	5.06	6.34	5.06
September	2.26	1.27	.65	.36	3.79	3.78	6.70	5.41	7.33	5.73	6.70	5.41
October	1.70		.73		4.67		7.10		7.62		7.10	
November	1.12		.56		4.80		6.48		7.30		6.48	
December	1.69		.57		5.59		7.85		6.24		6.24	
Average	2.22		.76		5.37		8.35		7.68		7.68	



# HOUSING

## Building Permits in Principal Cities, September, 1931

**B**UILDING permit reports have been received by the Bureau of Labor Statistics from 345 identical cities having a population of 25,000 or over for the months of August and September, 1931, and from 295 identical cities for the months of September, 1930, and September, 1931.

The cost figures as shown in the following tables apply to the cost of the buildings as estimated by the prospective builder on applying for his permit to build. No land costs are included. Only building projects within the corporate limits of the cities enumerated are shown. The States of Massachusetts, New Jersey, New York, Pennsylvania, and Illinois, through their departments of labor, are cooperating with the United States Bureau of Labor Statistics in the collection of these data.

Table 1 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in the 345 identical cities of the United States by geographic divisions.

TABLE 1.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 345 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN AUGUST AND SEPTEMBER, 1931, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings						New nonresidential buildings, estimated cost		
	Estimated cost			Families provided for in new dwellings			August, 1931	September, 1931	Per cent of change
	August, 1931	September, 1931	Per cent of change	August, 1931	September, 1931	Per cent of change			
New England.....	\$3, 896, 525	\$2, 962, 715	-24. 0	509	558	+9. 6	\$3, 972, 554	\$13, 890, 230	+249. 7
Middle Atlantic.....	20, 802, 420	12, 955, 873	-37. 7	3, 916	2, 646	-32. 4	22, 616, 536	10, 448, 277	-53. 8
East North Central.....	4, 916, 889	3, 701, 558	-24. 7	955	754	-21. 0	27, 946, 110	7, 473, 749	-73. 3
West North Central.....	2, 575, 212	1, 818, 640	-29. 4	678	492	-27. 4	2, 705, 522	2, 899, 289	+7. 2
South Atlantic.....	2, 462, 580	2, 787, 670	+13. 2	595	603	+1. 3	4, 171, 653	5, 249, 503	+25. 8
South Central.....	2, 402, 938	2, 075, 967	-13. 6	643	638	-0. 8	3, 721, 402	2, 990, 678	-19. 4
Mountain and Pacific.....	4, 711, 028	4, 669, 700	- .9	1, 415	1, 465	+3. 5	4, 201, 797	2, 423, 792	-42. 3
Total.....	41, 767, 592	30, 972, 123	-25. 8	8, 711	7, 156	-17. 9	69, 335, 574	45, 384, 518	-34. 5

Geographic division	Additions, alterations, and repairs, estimated cost			Total construction, estimated cost			Number of cities
	August, 1931	September, 1931	Per cent of change	August, 1931	September, 1931	Per cent of change	
New England.....	\$1, 993, 174	\$1, 308, 725	-34. 3	\$9, 862, 253	\$18, 161, 670	+84. 2	50
Middle Atlantic.....	5, 851, 609	4, 606, 885	-21. 3	49, 270, 565	28, 011, 035	-43. 1	69
East North Central.....	3, 117, 619	2, 926, 730	-6. 1	35, 980, 618	14, 102, 037	-60. 8	95
West North Central.....	1, 074, 307	1, 078, 753	+ .4	6, 355, 041	5, 796, 682	-8. 8	25
South Atlantic.....	2, 003, 949	1, 374, 646	-31. 4	8, 638, 182	9, 411, 819	+9. 0	37
South Central.....	953, 712	866, 312	-9. 2	7, 078, 052	5, 941, 957	-16. 1	35
Mountain and Pacific.....	1, 639, 540	1, 961, 090	+19. 6	10, 552, 365	9, 054, 582	-14. 2	34
Total.....	16, 633, 910	14, 123, 141	-15. 1	127, 737, 076	90, 479, 782	-29. 2	345

Permits were issued during September, 1931, in these 345 identical cities for building operations to cost \$90,479,782. This is 29.2 per cent less than the estimated cost of building operations for which permits were issued during August, 1931. There was a decrease of 25.8 per cent in the estimated cost of new residential buildings; a decrease of 34.5 per cent in the estimated cost of new nonresidential buildings; and a decrease of 15.1 per cent in the estimated cost of additions, alterations, and repairs.

It is of interest to note, however, that while estimated costs have decreased the number of buildings has increased, indicating a lower average valuation. The permits issued in September, 1931, for total building operations, show an increase of 6.4 per cent in the number of buildings compared with the number of buildings covered by permits issued in the month of August, 1931. There was an increase of one-tenth of 1 per cent in the number of residential buildings, and an increase of 11.8 per cent in the number of nonresidential buildings. Comparison of permits issued for additions, alterations, and repairs, for this same period, indicate an increase of 5.4 per cent in the number.

During September, 1931, permits were issued for new residential buildings to provide for 7,156 families. This is 17.9 per cent less than the family dwelling units provided by the new buildings for which permits were issued during August, 1931.

All geographic divisions, except the South Atlantic, showed decreases in the estimated cost of new residential buildings, comparing September permits with August permits. The decreases ranged from nine-tenths of 1 per cent in the Mountain and Pacific States to 37.7 per cent in the Middle Atlantic States. The South Atlantic States showed an increase of 13.2 per cent.

There were increases in the estimated cost of new nonresidential buildings in three geographic divisions and decreases in four geographic divisions. The increases ranged from 7.2 per cent in the West North Central States to 249.7 per cent in the New England States. The decreases ranged from 19.4 per cent in the South Central States to 73.3 per cent in the East North Central States.

The New England and the South Atlantic were the only geographic divisions showing increases in total building construction. The other five geographic divisions registered decreases, ranging from 8.8 per cent in the West North Central States to 43.1 per cent in the Middle Atlantic States.

The estimated cost of additions, alterations, and repairs were higher in September than in August in the West North Central States and the Mountain and Pacific States. Decreases were shown in the other geographic divisions, ranging from 6.1 per cent in the East North Central States to 34.3 per cent in the New England States.

Three geographic divisions showed increases in the number of families provided for and four showed decreases. The increases ranged from 1.3 per cent in the South Atlantic States to 9.6 per cent in the New England States, and the decreases ranged from eight-tenths of 1 per cent in the South Central States to 32.4 per cent in the Middle Atlantic States.

Table 2 shows the index number of families provided for and index numbers of indicated expenditures for new residential buildings, new nonresidential buildings, for additions, alterations, and repairs, and

for total building operations. These indexes are worked on the chain system with the monthly average of 1929 equaling 100.

TABLE 2.—INDEX NUMBERS OF FAMILIES PROVIDED FOR AND OF THE ESTIMATED COST OF BUILDING OPERATIONS AS SHOWN BY PERMITS ISSUED IN PRINCIPAL CITIES OF THE UNITED STATES, JANUARY, 1930, TO SEPTEMBER, 1931, INCLUSIVE

[Monthly average, 1929=100]

Month	Families provided for	Estimated cost of—			
		New resi- dential buildings	New non- residential buildings	Additions, alterations, and repairs	Total building operations
1930					
January .....	34.2	29.4	64.3	55.1	46.1
February .....	43.0	34.7	51.8	57.5	44.1
March .....	57.1	47.2	87.1	77.5	66.4
April .....	62.0	51.0	100.1	81.8	73.8
May .....	59.6	48.5	90.7	84.5	69.3
June .....	54.4	45.1	82.5	74.6	63.3
July .....	49.9	44.1	86.7	77.4	64.8
August .....	48.7	43.4	67.2	58.6	54.4
September .....	51.3	44.4	73.8	64.2	58.2
October .....	58.3	44.9	53.5	58.1	49.7
November .....	52.9	42.5	54.4	37.8	46.3
December .....	45.0	37.6	64.3	53.5	50.1
1931					
January .....	39.1	30.8	43.4	55.5	38.9
February .....	40.3	30.3	43.8	48.6	37.9
March .....	53.4	40.7	76.4	58.0	57.1
April .....	64.6	48.6	73.9	65.2	60.6
May .....	51.7	39.8	58.5	53.0	48.8
June .....	43.4	33.4	41.7	56.5	39.4
July .....	35.8	27.6	53.7	57.8	41.7
August .....	36.6	33.5	63.9	48.3	47.3
September .....	30.1	24.8	41.8	41.0	33.5

The index number of total building operations for September stood at 33.5 per cent, which is the lowest point in either 1930 or 1931. The index numbers for new residential buildings, for new nonresidential buildings, for additions, alterations, and repairs, and for families provided for also reached a lower point than for any other month during either 1930 or 1931. The charts on pages 144 and 145 show in graphic form the information contained in this table.

Table 3 shows the value of contracts awarded for public buildings by the different agencies of the United States Government during the months of August, 1931, and September, 1931, by geographic divisions.

TABLE 3.—CONTRACTS LET FOR PUBLIC BUILDINGS BY DIFFERENT AGENCIES OF THE UNITED STATES GOVERNMENT DURING AUGUST AND SEPTEMBER, 1931, BY GEOGRAPHIC DIVISIONS

Geographic division	August, 1931	September, 1931
New England.....	\$198,805	\$1,500,091
Middle Atlantic.....	6,560,324	1,679,711
East North Central.....	17,417,861	802,896
West North Central.....	472,100	334,004
South Atlantic.....	1,804,819	3,074,196
South Central.....	1,742,725	2,027,395
Mountain and Pacific.....	265,627	913,395
Total.....	28,462,261	10,331,688



During September, 1931, 124 contracts were let by various agencies of the United States Government for building operations throughout the United States to cost \$10,331,688. The following Federal agencies issued these contracts: United States Capitol Architect; Office of the Quartermaster General, War Department; Bureau of Yards and Docks, Navy Department; Supervising Architect, Treasury Department; and the United States Veterans' Bureau.

Table 4 shows the value of contracts awarded by the different State governments for public buildings during the months of August, 1931, and September, 1931, by geographic divisions.

TABLE 4.—CONTRACTS AWARDED FOR PUBLIC BUILDINGS BY THE DIFFERENT STATE GOVERNMENTS DURING AUGUST AND SEPTEMBER, 1931, BY GEOGRAPHIC DIVISIONS

Geographic division	August, 1931	September, 1931
New England.....	\$554, 883	\$808, 507
Middle Atlantic.....	4, 596, 483	5, 135, 800
East North Central.....	865, 583	690, 362
West North Central.....	467, 229	555, 525
South Atlantic.....	390, 631	323, 383
South Central.....	65, 660	682, 024
Mountain and Pacific.....	176, 160	620, 879
Total.....	7, 116, 629	8, 816, 480

During September, 1931, contracts awarded by the various State governments for public buildings totaled \$8,816,480. Whenever a contract was let by the Federal Government or by the State governments for buildings in cities having a population of 25,000 or over, the cost of such building is included in the costs shown in the several tables presented herewith.

Table 5 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 295 identical cities having a population of 25,000 or over, for September, 1930, and September, 1931, by geographic divisions.

TABLE 5.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 295 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN SEPTEMBER, 1930, AND SEPTEMBER, 1931, BY GEOGRAPHIC DIVISIONS.

Geographic division	New residential buildings						New nonresidential buildings, estimated cost		
	Estimated cost			Families provided for in new buildings					
	September, 1930	September, 1931	Per cent of change	September, 1930	September, 1931	Per cent of change	September, 1930	September, 1931	Per cent of change
New England.....	\$3, 009, 425	\$2, 878, 615	- 4. 3	509	536	+ 5. 3	\$4, 026, 559	\$13, 868, 381	+244. 4
Middle Atlantic.....	23, 049, 826	12, 803, 373	-44. 5	4, 234	2, 621	-38. 1	28, 279, 816	10, 384, 440	-63. 3
East North Central.....	12, 392, 546	3, 369, 583	-72. 8	1, 627	688	-57. 7	19, 056, 030	6, 924, 997	-63. 7
West North Central.....	2, 272, 330	1, 798, 890	-20. 8	674	486	-27. 9	3, 663, 327	2, 889, 964	-21. 1
South Atlantic.....	1, 862, 521	2, 750, 070	+47. 7	473	574	+21. 4	3, 043, 951	5, 198, 466	+70. 8
South Central.....	3, 193, 956	1, 979, 322	-38. 0	955	587	-38. 5	6, 586, 891	2, 662, 599	-59. 6
Mountain and Pacific.....	7, 166, 728	4, 259, 950	-40. 6	2, 202	1, 366	-38. 0	8, 989, 044	2, 320, 637	-74. 2
Total.....	52, 947, 332	29, 839, 803	-43. 6	10, 674	6, 858	-35. 8	73, 645, 618	44, 249, 484	-39. 9

TABLE 5.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 295 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN SEPTEMBER, 1930, AND SEPTEMBER, 1931, BY GEOGRAPHIC DIVISIONS—Continued

Geographic division	Additions, alterations, and repairs, estimated cost			Total construction, estimated cost			Number of cities
	September, 1930	September, 1931	Per cent of change	September, 1930	September, 1931	Per cent of change	
New England.....	\$1,973,385	\$1,253,443	-36.5	\$9,009,369	\$18,000,439	+99.8	46
Middle Atlantic.....	7,286,437	4,559,828	-37.4	58,616,079	27,747,641	-52.7	65
East North Central.....	4,698,342	2,769,841	-41.0	36,146,918	13,064,421	-63.9	75
West North Central.....	1,024,920	1,049,598	+2.4	6,960,577	5,738,452	-17.6	24
South Atlantic.....	2,046,184	1,341,926	-34.4	6,952,656	9,290,462	+33.6	33
South Central.....	1,192,341	766,041	-35.8	10,973,188	5,407,962	-50.7	25
Mountain and Pacific.....	3,052,000	1,898,575	-37.8	19,207,772	8,479,162	-55.9	27
Total.....	21,273,609	13,639,252	-35.9	147,866,559	87,728,539	-40.7	295

Comparing permits issued in September, 1931, with those issued in September, 1930, there was a decrease of 40.7 per cent in the estimated cost of total building operations in these 295 cities. New residential buildings decreased 43.6 per cent; new nonresidential buildings, 39.9 per cent; additions, alterations, and repairs, 35.9 per cent; and the number of family dwelling units provided, 35.8 per cent, comparing September, 1931, with September, 1930.

All geographic divisions except the South Atlantic showed decreases in new residential buildings. The decreases ranged from 4.3 per cent in the New England States to 72.8 per cent in the East North Central States.

Two geographic divisions, the New England and the South Atlantic, showed increases in the number of family dwelling units provided. Decreases were shown in the other five geographic divisions.

Increases in new nonresidential buildings were also recorded in the South Atlantic States and the New England States. The other geographic divisions showed decreases.

Only one geographic division, the West North Central, showed an increase in expenditures for additions, alterations, and repairs.

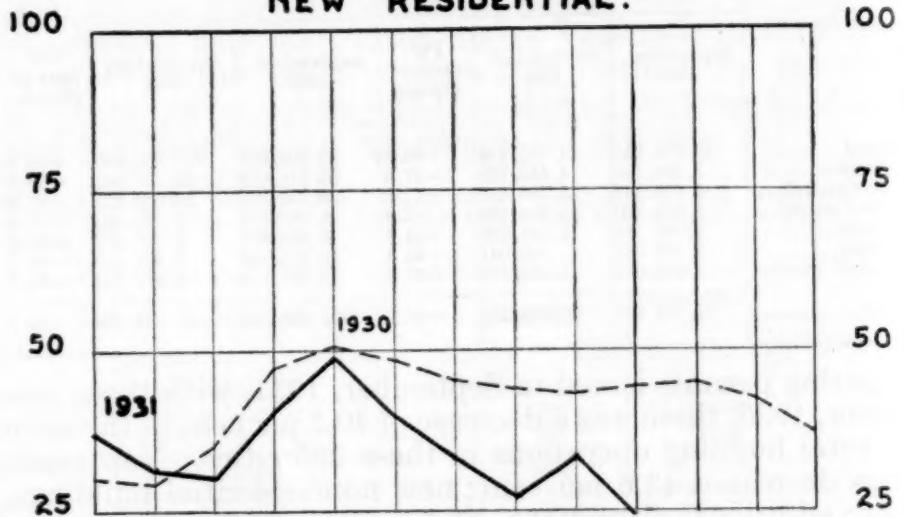
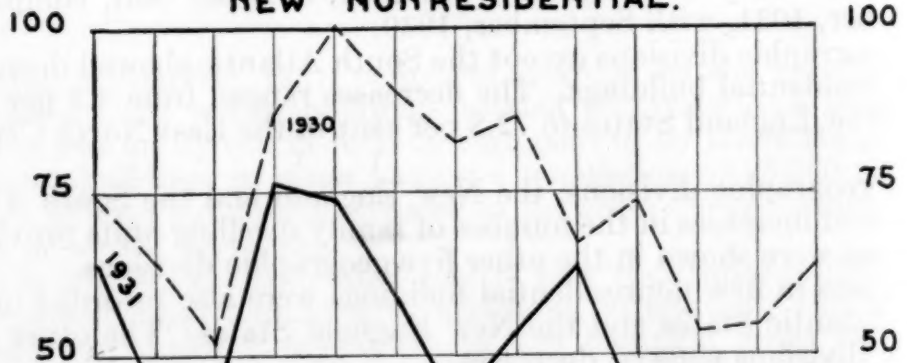
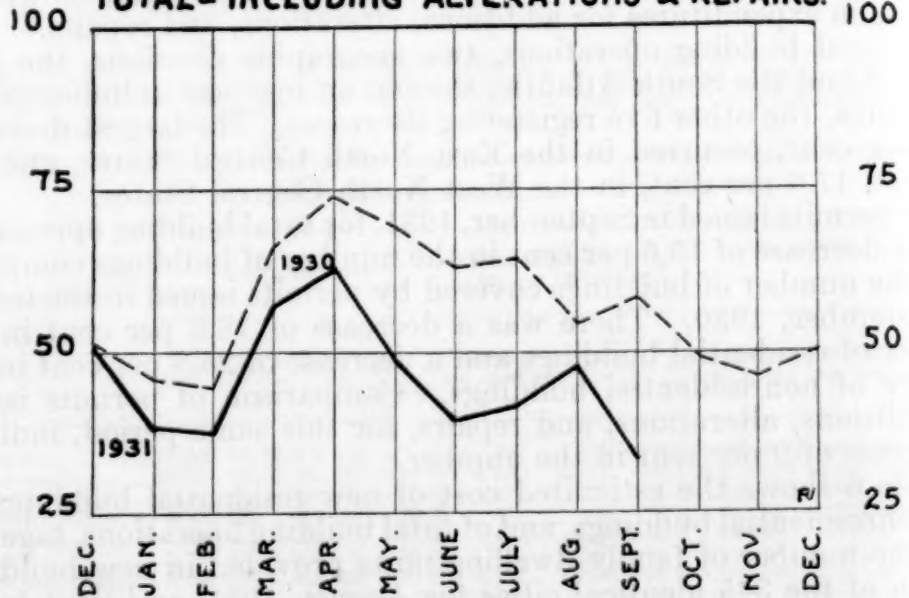
For total building operations, two geographic divisions, the New England and the South Atlantic, showed an increase in indicated expenditures, the other five registering decreases. The largest decrease, 63.9 per cent, occurred in the East North Central States, and the smallest, 17.6 per cent, in the West North Central States.

The permits issued in September, 1931, for total building operations, show a decrease of 15.6 per cent in the number of buildings compared with the number of buildings covered by permits issued in the month of September, 1930. There was a decrease of 18.6 per cent in the number of residential buildings and a decrease of 25.5 per cent in the number of nonresidential buildings. Comparison of permits issued for additions, alterations, and repairs, for this same period, indicate a decrease of 9 per cent in the number.

Table 6 shows the estimated cost of new residential buildings, of new nonresidential buildings, and of total building operations, together with the number of family dwelling units provided in new buildings in each of the 345 identical cities for August, 1931, and September, 1931. Reports were received from 50 cities in the New England States, from 69 cities in the Middle Atlantic States, from 95 cities in

**INDEXES OF COST OF BUILDING OPERATIONS.**

MONTHLY AVERAGE 1929=100.

**NEW RESIDENTIAL.****NEW NONRESIDENTIAL.****TOTAL-INCLUDING ALTERATIONS & REPAIRS.**

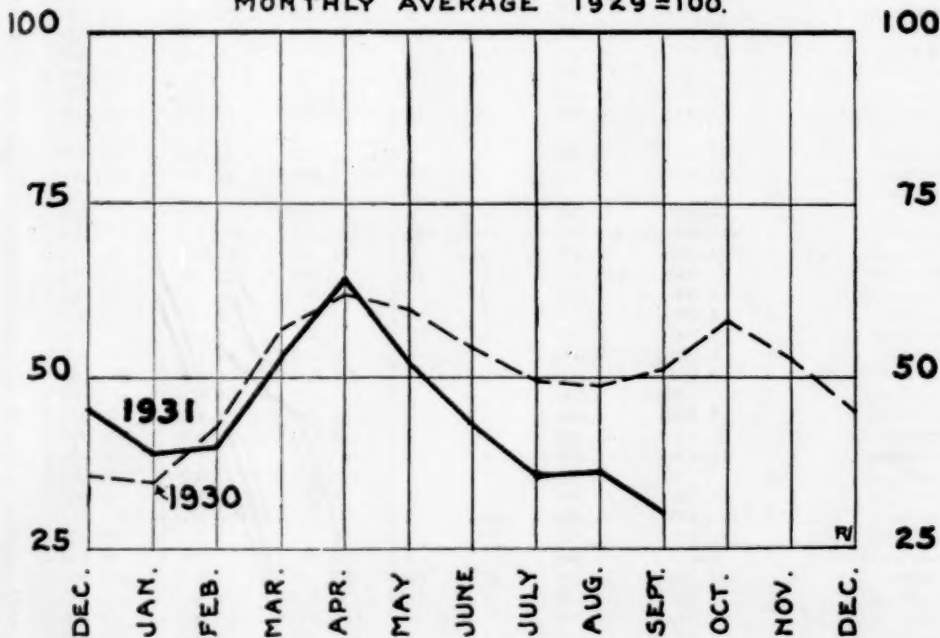


the East North Central States, from 25 cities in the West North Central States, from 37 cities in the South Atlantic States, from 35 cities in the South Central States, and from 34 cities in the Mountain and Pacific States.

Permits were issued for the following important building projects during the month of September, 1931: In New Haven, Conn., for a hospital to cost \$825,000 and for two buildings at Yale University to cost nearly \$2,000,000; in Meriden, for an institutional building to cost nearly \$600,000; in Boston, for a Christian Science office building and publishing house to cost \$3,000,000; in Worcester, for a school building to cost \$2,000,000; in Brooklyn, for a public building to cost \$1,625,000 and for a school building to cost \$410,000; in Fort Wayne, for an institutional building to cost \$400,000; in Indianapolis, for two office buildings to cost \$1,850,500; in Topeka, for an office

### INDEXES OF FAMILIES PROVIDED FOR.

MONTHLY AVERAGE 1929=100.



building to cost \$500,000; in Minneapolis, for a school building to cost \$425,000; in St. Louis, for an office building to cost \$660,000; in Clarksburg, W. Va., for a courthouse to cost \$456,700. Contracts were let by the Federal Government for a post office and Federal courthouse in Trenton, N. J., to cost nearly \$780,000; for a post office and Federal courthouse in Miami, Fla., to cost over \$1,000,000; for a post office in Wichita Falls, Tex., to cost nearly \$450,000; and for the excavation and foundation for the Department of Justice building in Washington, D. C., to cost \$949,000.

No reports were received from Hartford and New London (Conn.), Bangor (Me.), Zanesville (Ohio), University City (Mo.), Pensacola and West Palm Beach (Fla.), Spartanburg (S. C.), Lynchburg (Va.), Fort Smith (Ark.), Lexington (Ky.), Meridian (Miss.), Muskogee

(Okla.), Corpus Christi, Galveston, and Laredo (Tex.), Santa Barbara and Santa Monica (Calif.), and Butte (Mont.).

TABLE 6.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, AUGUST AND SEPTEMBER, 1931

*New England States*

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	August, 1931	September, 1931	August, 1931	September, 1931	August, 1931	September, 1931	August, 1931	September, 1931
Connecticut:								
Bridgeport.....	\$130,800	\$143,150	33	40	\$7,477	\$16,352	\$222,123	\$199,632
Bristol.....	30,150	28,400	8	7	1,610	9,852	34,090	45,332
Greenwich.....	93,500	76,000	8	9	7,500	287,650	137,460	383,673
Meriden.....	17,400	13,300	4	3	2,280	619,968	27,290	643,043
New Britain.....	16,000	0	4	0	1,200	3,075	23,439	12,131
New Haven.....	1,407,100	69,000	19	13	19,200	2,964,335	1,479,229	3,064,833
Norwalk.....	70,000	79,200	14	14	5,700	10,160	86,020	110,112
Stamford.....	82,000	62,000	12	9	14,655	3,150	117,540	76,796
Torrington.....	2,000	25,500	1	6	5,435	3,685	9,725	35,196
Waterbury.....	18,000	34,000	5	9	8,550	23,255	37,450	70,055
Maine:								
Lewiston.....	32,500	6,300	8	2	6,100	42,525	40,600	50,125
Portland.....	35,800	32,850	8	10	4,200	26,715	67,529	87,146
Massachusetts:								
Beverly.....	36,800	21,200	6	6	3,150	5,062	51,100	38,184
Boston.....	417,800	484,500	71	122	1,376,410	4,220,613	2,771,117	5,172,682
Brockton.....	43,900	39,800	10	9	31,769	85,505	89,284	135,136
Brookline.....	82,000	228,400	9	20	12,990	22,565	110,945	255,290
Cambridge.....	19,000	198,500	2	2	32,360	999,910	81,895	1,233,635
Chelsea.....	4,000	0	1	0	5,645	1,000	16,654	31,877
Chicopee.....	9,500	5,500	4	2	1,500	3,075	13,900	10,973
Everett.....	4,000	9,600	1	3	79,450	54,150	87,250	69,250
Fall River.....	9,500	3,800	2	1	228,626	1,430	245,190	22,506
Fitchburg.....	0	2,000	0	1	75	4,800	1,105	29,640
Haverhill.....	6,300	5,600	4	2	39,100	3,615	50,925	17,090
Holyoke.....	26,500	43,000	5	3	2,150	21,600	38,900	83,450
Lawrence.....	11,600	5,000	4	1	95,726	9,875	121,576	22,073
Lowell.....	0	29,300	0	7	123,855	7,935	129,865	47,110
Lynn.....	48,700	59,285	11	15	3,200	8,175	89,455	84,256
Malden.....	100,400	54,500	23	12	6,581	6,900	115,631	84,383
Medford.....	100,900	117,100	22	23	9,725	5,890	163,875	126,433
New Bedford.....	5,000	5,000	1	1	7,000	5,000	20,370	31,750
Newton.....	182,500	152,300	23	19	792,156	8,006	986,096	186,900
Pittsfield.....	74,300	69,000	17	15	7,125	44,450	107,350	126,325
Quincy.....	78,200	123,200	15	28	9,690	125,025	113,188	269,830
Revere.....	5,000	17,000	1	4	2,450	1,300	12,050	29,700
Salem.....	32,000	50,400	6	9	43,900	10,300	106,506	94,603
Somerville.....	19,000	17,700	6	5	7,480	2,925	40,670	31,146
Springfield.....	102,775	69,080	30	18	70,265	680,598	192,115	759,628
Taunton.....	8,850	3,500	2	2	4,690	888	53,263	13,237
Waltham.....	14,500	26,700	4	5	1,675	111,700	20,770	149,250
Watertown.....	37,000	35,700	8	7	13,175	7,725	59,715	47,525
Worcester.....	119,350	127,600	19	21	651,990	2,508,280	818,240	2,661,536
New Hampshire:								
Concord.....	21,500	9,000	7	3	5,200	3,250	26,700	12,500
Manchester.....	15,400	25,700	6	9	81,550	20,830	111,870	76,873
Rhode Island:								
Central Falls.....	0	4,500	0	1	650	2,280	2,950	9,530
Cranston.....	49,000	68,050	12	16	17,185	12,130	81,010	82,320
East Providence.....	34,800	33,450	8	8	40,979	71,350	92,668	114,920
Newport.....	33,500	27,050	7	7	3,980	80,370	40,490	110,420
Pawtucket.....	40,700	17,800	9	4	7,460	219,910	65,080	252,840
Providence.....	153,000	199,700	22	24	63,960	491,791	407,910	839,900
Woonsocket.....	14,000	3,500	7	1	3,775	9,300	42,080	18,840
Total.....	3,896,525	2,962,715	509	558	3,972,554	13,890,230	9,862,253	18,161,670
Per cent of change.....		-24.0		+9.6		+249.7		+84.2

<sup>1</sup> Applications filed.

TABLE 6.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, AUGUST AND SEPTEMBER, 1931—Continued

## Middle Atlantic States

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings		August, 1931	September, 1931	August, 1931	September, 1931
	August, 1931	September, 1931	August, 1931	September, 1931				
New Jersey:								
Atlantic City.....	\$2,500	\$2,500	1	1	\$19,850	\$560	\$65,323	\$22,020
Bayonne.....	0	0	0	0	18,390	6,471	31,905	17,112
Belleville.....	53,150	88,800	14	12	4,250	11,180	64,400	109,738
Bloomfield.....	50,500	130,000	11	28	330,700	20,000	389,200	151,500
Camden.....	20,000	0	9	0	113,060	6,525	145,880	17,670
Clifton.....	65,200	98,100	16	23	4,484	8,450	74,734	116,995
East Orange.....	50,100	11,000	8	2	13,725	18,985	155,306	94,670
Elizabeth.....	30,000	37,000	5	8	8,000	16,000	38,000	53,000
Garfield.....	14,800	13,100	5	4	3,000	3,850	19,900	19,875
Hoboken.....	0	0	0	0	0	3,400	13,150	23,260
Irvington.....	55,625	5,500	12	1	11,175	33,649	150,193	45,219
Jersey City.....	27,000	44,000	7	12	33,935	13,175	96,630	97,802
Kearny.....	11,000	44,000	3	7	675	69,579	12,835	119,254
Montclair.....	85,500	57,500	8	6	4,675	6,225	109,992	71,676
Newark.....	57,400	103,000	11	17	198,443	49,120	437,190	267,295
New Brunswick.....	1,500	7,000	1	2	1,250	1,200	9,432	20,350
Orange.....	34,500	5,900	2	1	2,525	1,300	55,275	24,300
Passaic.....	6,500	0	1	0	6,100	3,450	39,123	39,990
Paterson.....	24,200	64,300	7	15	74,750	17,050	140,542	128,007
Perth Amboy.....	4,800	0	1	0	1,650	9,680	12,490	12,405
Plainfield.....	71,700	49,000	9	8	16,437	4,775	107,185	92,765
Trenton.....	15,000	27,500	2	4	2,370	787,655	47,092	824,730
Union City.....	0	38,000	0	16	1,000	18,500	19,675	70,925
West New York.....	0	0	0	0	500	450	17,725	8,325
New York:								
Albany.....	134,500	154,800	17	20	23,848	142,500	248,084	385,629
Amsterdam.....	9,500	0	2	0	36,000	4,800	47,000	14,450
Auburn.....	12,000	32,000	4	6	585,981	18,975	602,641	63,803
Binghamton.....	62,500	13,800	15	5	5,295	11,279	119,821	73,618
Buffalo.....	159,000	108,100	51	54	254,958	447,673	495,377	729,597
Elmira.....	22,800	18,800	5	4	4,680	37,640	40,261	73,140
Jamestown.....	10,000	26,000	3	7	335,075	42,330	380,692	72,320
Kingston.....	16,000	14,700	4	3	12,707	3,420	36,667	35,944
Lockport.....	9,000	0	3	0	1,275	957	16,930	2,347
Mount Vernon.....	127,500	35,000	12	4	66,150	3,500	210,115	60,509
Newburgh.....	6,000	0	1	0	6,800	4,650	22,950	14,762
New Rochelle.....	252,620	195,500	15	13	3,600	4,175	270,450	207,239
New York City—								
The Bronx <sup>1</sup> .....	3,450,350	1,932,500	780	437	608,000	552,385	4,364,390	2,749,647
Brooklyn <sup>1</sup> .....	4,044,400	1,779,900	863	424	919,125	2,767,610	5,727,900	5,097,442
Manhattan <sup>1</sup> .....	4,620,000	995,000	385	233	14,726,466	1,811,527	20,682,236	4,110,470
Queens <sup>1</sup> .....	4,408,738	2,253,150	1,141	488	996,875	1,174,364	6,499,350	3,832,509
Richmond <sup>1</sup> .....	174,000	184,600	42	48	26,550	42,046	339,564	278,937
Niagara Falls.....	59,950	47,400	12	15	5,721	32,521	80,462	109,434
Poughkeepsie.....	24,000	48,500	4	7	17,300	3,125	45,400	67,548
Rochester.....	46,000	69,100	11	13	296,110	139,940	394,027	238,947
Schenectady.....	34,800	49,000	7	9	16,950	191,000	68,200	271,300
Syracuse.....	159,500	110,500	31	20	16,280	13,850	201,980	139,325
Troy.....	57,500	334,000	13	11	35,450	5,400	171,301	353,790
Utica.....	48,000	27,500	8	7	4,225	243,150	62,175	285,750
Watertown.....	10,000	5,225	3	3	2,700	2,105	46,427	19,102
White Plains.....	258,000	100,000	29	10	205,200	20,355	486,830	139,230
Yonkers.....	521,300	1,318,800	64	248	31,474	15,975	599,174	1,373,315
Pennsylvania:								
Allentown.....	42,200	23,000	6	4	116,350	93,550	201,650	128,350
Altoona.....	6,400	15,400	3	4	8,719	4,652	30,062	47,396
Bethlehem.....	20,000	9,500	7	1	700	1,850	42,700	13,650
Butler.....	0	0	0	0	0	0	4,300	375
Chester.....	22,300	4,700	8	3	1,800	181,900	24,300	186,600
Easton.....	0	0	0	0	2,785	4,345	4,008	12,700
Erie.....	90,650	125,300	25	38	48,395	293,965	175,422	464,808
Harrisburg.....	30,000	593,000	6	9	57,096	51,015	96,151	654,600
Hazleton.....	24,187	10,998	6	2	14,097	6,958	54,155	30,468
Johnstown.....	8,100	6,000	2	1	227,380	1,975	253,005	14,650
Lancaster.....	0	7,000	0	2	6,500	1,000	17,035	45,770
McKeesport.....	8,450	29,000	2	3	2,500	2,565	21,385	39,078
Nanticoke.....		41,000		11		46,000		105,000

<sup>1</sup> Applications filed<sup>2</sup> Not included in total.



TABLE 6.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, AUGUST AND SEPTEMBER, 1931—Continued

*Middle Atlantic States—Continued*

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	August, 1931	September, 1931	August, 1931	September, 1931	August, 1931	September, 1931	August, 1931	September, 1931
Pennsylvania—Con.								
New Castle.....	\$8,500	\$5,300	2	1	\$1,915	\$2,675	\$11,405	\$12,670
Norristown.....	0	550	0	2	13,021	8,366	34,761	39,664
Philadelphia.....	609,300	551,850	88	135	1,401,735	337,665	2,378,694	1,173,257
Pittsburgh.....	352,450	680,600	76	163	327,385	250,910	876,351	1,243,157
Reading.....	72,700	50,600	11	9	11,050	47,850	105,392	128,667
Scranton.....	39,850	55,300	9	3	105,070	102,159	173,965	198,247
Wilkes-Barre.....	7,900	5,700	3	3	40,885	127,515	74,865	152,300
Wilkesburg.....	8,500	11,000	1	3	4,050	1,900	17,120	25,616
Williamsport.....	0	0	0	0	104,259	42,395	117,098	59,313
York.....	32,000	31,000	3	4	5,105	34,586	43,130	90,712
Total.....	20,802,420	12,955,873	3,916	2,646	22,616,536	10,448,277	49,270,565	28,011,635
Per cent of change.....		-37.7		-32.4		-53.8		-43.1

*East North Central States*

<b>Illinois:</b>								
Alton.....	\$38,390	\$2,000	5	1	\$1,283	\$608	\$55,417	\$9,967
Aurora.....	19,100	12,800	4	3	86,429	6,955	112,909	60,626
Belleville.....	67,000	25,000	15	6	1,700	6,580	69,500	32,580
Berwyn.....	14,000	21,500	2	3	51,625	6,834	74,487	32,334
Bloomington.....	0	25,000	0	6	79,000	14,000	79,000	41,000
Chicago.....	769,380	463,600	72	54	18,468,222	1,072,600	19,778,162	1,969,543
Cicero.....	29,400	7,500	4	1	4,400	540	35,785	12,690
Danville.....	10,300	2,100	1	1	1,700	1,400	18,913	8,600
Decatur.....	21,000	12,500	5	2	4,075	156,330	30,075	172,580
East St. Louis.....	18,400	18,950	14	12	96,960	14,885	115,360	57,135
Elgin.....	24,250	10,300	6	2	6,075	2,650	57,185	18,720
Evanston.....	38,000	55,000	3	3	5,250	143,000	115,750	247,000
Granite City.....	0	0	0	0	0	26,000	0	26,000
Joliet.....	18,800	12,000	3	2	26,450	2,100	137,541	33,200
Maywood.....	0	0	0	0	1,500	1,095	5,820	4,070
Moline.....	21,100	7,000	6	2	2,170	10,145	25,978	27,419
Oak Park.....	14,000	0	1	0	151,640	93,620	166,778	163,185
Peoria.....	70,500	78,600	15	21	17,175	39,185	107,225	117,785
Quincy.....	500	0	1	0	2,915	1,910	3,915	1,910
Rockford.....	20,000	4,000	5	1	5,165	9,377	164,755	20,472
Rock Island.....	31,400	18,050	9	5	3,787	1,090	44,748	41,228
Springfield.....	32,500	108,500	7	29	12,625	10,960	148,835	200,426
Waukegan.....	37,000	4,000	7	1	2,750	31,475	50,150	40,025
<b>Indiana:</b>								
Anderson.....	13,000	0	5	0	785	2,905	25,800	14,299
East Chicago.....	0	0	0	0	0	40,350	30,274	42,500
Elkhart.....	11,600	2,500	2	1	10,785	2,162	33,633	10,610
Evansville.....	46,800	17,500	10	5	25,635	5,822	88,645	36,603
Fort Wayne.....	79,800	59,410	14	10	532,663	493,913	630,360	573,071
Gary.....	28,300	26,900	11	7	7,695	2,000	40,320	38,975
Hammond.....	21,500	18,200	7	4	4,159	131,077	39,084	154,247
Indianapolis.....	187,500	104,725	41	29	831,965	1,888,319	1,073,903	2,062,921
Kokomo.....	0	5,000	0	1	3,347	2,640	9,478	11,161
Lafayette.....	14,500	7,500	5	3	3,500	3,400	22,500	10,900
Marion.....	3,000	0	1	0	2,000	225	6,565	2,279
Michigan City.....	12,200	6,000	4	2	1,275	6,890	13,725	17,240
Mishawaka.....	5,200	4,000	2	1	770	915	8,410	5,040
Muncie.....	11,600	2,000	3	1	24,125	27,690	42,516	36,384
Richmond.....	2,500	0	1	0	250,400	600	252,900	10,100
South Bend.....	16,500	12,725	3	3	721,852	37,020	752,407	58,590
Terre Haute.....	0	2,950	0	2	1,332	1,825	9,290	16,258
<b>Michigan:</b>								
Ann Arbor.....	48,400	45,500	6	6	5,210	1,950	87,426	110,790
Battle Creek.....	2,000	800	1	1	116,930	67,225	121,505	70,569
Bay City.....	23,900	25,500	7	8	3,150	362,550	47,310	399,835
Dearborn.....	63,500	38,500	13	8	13,020	248,000	79,945	296,695
Detroit.....	648,650	547,035	133	117	191,784	171,146	1,133,492	1,637,910
Flint.....	137,257	98,867	14	10	84,856	27,162	247,263	158,914

TABLE 6.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, AUGUST AND SEPTEMBER, 1931—Continued

## East North Central States—Continued

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings		August, 1931	September, 1931	August, 1931	September, 1931
	August, 1931	September, 1931	August, 1931	September, 1931				
Michigan—Contd.								
Grand Rapids.....	\$42,000	\$18,800	14	6	\$26,820	\$48,060	\$97,490	\$92,805
Hamtramck.....	0	0	0	0	20,500	800	28,300	6,350
Highland Park.....	0	0	0	0	1,700	525	11,745	3,150
Jackson.....	6,375	13,400	3	2	20,350	11,970	34,602	29,800
Kalamazoo.....	22,500	14,500	4	4	1,352	41,960	46,156	75,875
Lansing.....	3,000	10,700	1	4	13,365	7,960	90,290	28,735
Muskegon.....	1,900	7,500	1	3	4,550	16,525	8,844	27,100
Pontiac.....	6,000	0	4	0	8,995	2,215	16,920	6,290
Port Huron.....	8,500	4,000	3	3	1,950	175,600	10,800	189,800
Saginaw.....	41,160	7,400	14	4	32,964	3,574	89,164	17,124
Wyandotte.....	30,700	23,650	7	6	2,075	3,938	34,875	34,378
Ohio:								
Akron.....	20,550	38,700	7	6	29,845	39,991	202,970	155,123
Ashtabula.....	7,000	6,300	2	2	5,565	1,810	21,865	14,240
Canton.....	5,500	5,000	1	1	80,750	4,920	92,640	12,230
Cincinnati.....	606,500	481,900	99	91	2,305,395	566,470	3,156,800	1,265,510
Cleveland.....	250,000	265,500	52	53	1,078,550	173,949	1,606,450	629,249
Cleveland Heights	132,000	71,700	19	10	70,890	35,735	203,890	109,160
Columbus.....	118,500	30,000	21	7	28,500	23,300	168,750	82,400
Dayton.....	43,000	82,200	11	14	40,743	46,576	120,573	138,904
East Cleveland.....	0	0	0	0	8,010	1,575	9,485	5,785
Elyria.....	1,000	0	1	0	27,650	1,835	29,660	4,165
Hamilton.....	8,900	0	1	0	18,455	6,870	48,670	17,450
Lakewood.....	16,500	0	4	0	69,065	4,720	87,235	6,135
Lima.....	0	0	0	0	275	1,165	12,450	9,275
Lorain.....	3,500	4,500	1	1	250	1,685	5,365	8,235
Mansfield.....	35,000	43,650	6	9	2,370	1,795	39,157	49,824
Marion.....	0	0	0	0	325	3,230	375	3,345
Massillon.....	0	1,500	0	1	100	50	1,350	2,100
Middletown.....	2,000	0	1	0	8,700	300	16,950	3,245
Newark.....	4,600	11,250	2	5	9,965	425	14,765	11,875
Norwood.....	0	10,000	0	2	15,600	16,220	17,365	33,945
Portsmouth.....	0	0	0	0	3,138	2,500	4,923	2,975
Springfield.....	7,600	7,500	4	2	10,695	4,950	21,085	15,580
Steubenville.....	11,000	9,500	3	3	600	925	18,850	17,600
Toledo.....	25,800	3,000	5	2	13,590	14,952	55,200	27,850
Warren.....	2,175	4,800	1	2	32,285	1,135	40,900	26,745
Youngstown.....	18,850	34,750	7	8	12,790	29,650	101,895	93,864
Wisconsin:								
Appleton.....	28,700	58,200	8	11	208,575	2,930	241,325	90,315
Eau Claire.....	31,500	5,800	8	3	6,100	51,050	48,151	56,850
Fond du Lac.....	13,100	7,800	4	3	700	1,413	16,730	12,108
Green Bay.....	15,300	22,800	5	7	7,775	17,540	33,925	56,450
Kenosha.....	44,700	9,600	5	2	200,985	2,405	255,920	18,747
Madison.....	64,800	87,100	13	20	11,845	105,080	99,781	205,085
Milwaukee.....	381,100	287,900	108	62	254,114	783,987	792,777	1,177,091
Oshkosh.....	37,252	10,246	11	5	1,920	8,329	43,677	23,480
Racine.....	66,200	27,000	8	3	992,385	8,284	1,064,500	44,194
Sheboygan.....	30,800	27,500	7	5	341,030	3,871	406,870	52,044
Superior.....	0	11,300	0	3	995	3,985	2,565	21,866
West Allis.....	48,600	20,600	11	5	40,830	5,890	210,455	31,205
Total.....	4,916,889	3,701,558	955	754	27,946,110	7,473,749	35,980,618	14,102,037
Per cent of change.....		-24.7		-21.0		-73.3		-60.8

## West North Central States

<b>Iowa:</b>								
Burlington.....	\$7,000	\$7,000	1	1	\$32,800	\$1,065	\$42,175	\$9,215
Cedar Rapids.....	53,500	44,535	19	12	386,736	40,029	459,150	100,636
Council Bluffs.....	8,000	6,000	3	1	2,350	4,300	15,150	46,300
Davenport.....	34,875	34,400	8	8	5,205	35,945	71,636	95,938
Des Moines.....	242,600	70,350	73	16	30,337	75,945	316,582	247,605
Dubuque.....	15,650	13,350	5	4	33,665	14,496	69,300	35,757
Ottumwa.....	12,500	27,250	6	8	0	3,550	14,200	35,250

TABLE 6.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, AUGUST AND SEPTEMBER, 1931—Continued

## West North Central States—Continued

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings		August, 1931	September, 1931	August, 1931	September, 1931
	August, 1931	September, 1931	August, 1931	September, 1931				
Iowa—Continued.								
Sioux City.....	\$59,800	\$60,750	21	17	\$140,575	\$25,475	\$209,035	\$90,825
Waterloo.....	191,350	15,200	12	10	16,335	8,975	248,960	34,175
Kansas:								
Hutchinson.....	8,400	12,275	5	8	3,650	160	14,640	16,740
Kansas City.....	24,750	7,900	13	6	22,550	5,398	58,180	18,608
Topeka.....	60,500	19,200	8	4	102,300	515,725	169,233	549,390
Wichita.....	83,275	56,500	29	16	427,347	26,143	524,552	95,705
Minnesota:								
Duluth.....	46,800	34,800	8	10	6,950	8,115	80,074	106,834
Minneapolis.....	438,640	312,025	115	83	295,545	515,790	856,950	961,121
St. Paul.....	231,060	209,970	45	42	47,100	497,754	382,688	1,070,385
Missouri:								
Joplin.....	0	8,000	0	1	108,600	700	113,250	18,685
Kansas City.....	131,000	144,000	41	46	258,000	35,900	553,600	215,400
Springfield.....	17,300	18,750	8	6	46,090	10,510	72,815	38,685
St. Joseph.....	8,500	9,000	4	3	2,930	725	49,355	16,617
St. Louis.....	552,700	537,900	157	141	173,950	732,658	935,193	1,423,230
Nebraska:								
Lincoln.....	53,825	32,400	14	9	478,132	100,411	569,887	143,011
Omaha.....	172,950	77,025	48	19	60,540	114,090	291,090	207,365
North Dakota:								
Fargo.....	42,800	19,750	10	6	11,775	9,325	145,099	58,290
South Dakota:								
Sioux Falls.....	77,437	40,310	25	15	12,060	116,105	92,247	160,975
Total.....	2,575,212	1,818,640	678	492	2,705,522	2,899,289	6,355,041	5,796,682
Per cent of change.....		-29.4		-27.4		+7.2		-8.8

## South Atlantic States

Delaware:								
Wilmington.....	\$60,000	\$21,000	12	4	\$4,623	\$67,661	\$107,731	\$98,035
District of Columbia:								
Washington.....	1,395,700	1,559,209	293	302	3,027,958	1,718,292	5,086,581	3,421,848
Florida:								
Jacksonville.....	35,850	26,100	13	11	10,235	12,270	101,695	92,635
Miami.....	28,750	100,450	15	12	28,440	1,073,205	110,824	1,232,276
Orlando.....	3,650	0	5	0	725	1,200	18,390	16,960
St. Petersburg.....	11,900	96,500	5	7	6,100	9,200	43,000	122,000
Tampa.....	4,500	3,600	3	4	34,660	5,730	63,533	33,632
Georgia:								
Atlanta.....	104,050	93,050	40	30	162,468	273,625	347,402	490,679
Augusta.....	18,450	8,908	9	7	46,204	301,935	78,019	321,766
Columbus.....	1,900	0	2	0	5,900	47,575	30,030	53,632
Macon.....	650	750	3	1	30,250	6,225	40,225	15,171
Savannah.....	25,300	7,800	27	4	1,220	1,550	50,256	10,725
Maryland:								
Baltimore.....	177,000	318,000	36	59	98,600	332,200	742,880	1,232,250
Cumberland.....	3,900	13,135	1	3	150	16,075	11,600	30,110
Hagerstown.....	1,900	1,750	1	1	2,145	1,000	20,220	9,825
North Carolina:								
Asheville.....	2,300	300	2	1	385	50	44,710	5,745
Charlotte.....	108,300	81,600	16	19	19,090	18,710	141,467	109,477
Durham.....	24,100	2,250	7	1	2,450	302,700	37,675	308,825
Greensboro.....	13,500	15,540	2	3	6,940	3,191	38,296	24,235
High Point.....	46,900	27,700	11	23	27,390	9,275	76,190	46,200
Raleigh.....	12,000	7,100	1	4	46,955	6,517	113,725	18,542
Wilmington.....	80,500	11,000	5	4	36,600	4,200	150,700	24,050
Winston-Salem.....	5,950	27,800	4	3	5,400	6,450	22,860	56,220
South Carolina:								
Charleston.....	17,000	30,913	5	3	0	200	37,160	37,773
Columbia.....	36,100	50,545	15	21	7,350	14,210	58,377	81,326
Greenville.....	34,000	29,800	6	6	700	575	36,805	42,545



TABLE 6.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, AUGUST AND SEPTEMBER, 1931—Continued

*South Atlantic States—Continued*

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings		August, 1931	September, 1931	August, 1931	September, 1931
	August, 1931	September, 1931	August, 1931	September, 1931				
Virginia:								
Newport News.....	\$9,000	\$6,596	3	2	\$1,533	\$36,596	\$25,450	\$65,444
Norfolk.....	89,550	86,850	22	21	47,370	32,092	162,368	152,944
Petersburg.....	4,000	225	2	1	300	5,500	6,500	6,575
Portsmouth.....	18,250	15,900	5	4	775	1,885	27,784	26,615
Richmond.....	19,000	40,400	4	12	341,671	308,000	460,847	397,868
Roanoke.....	16,500	25,875	4	6	101,546	86,624	138,011	120,997
West Virginia:								
Charleston.....	21,000	37,274	8	8	1,350	4,875	42,725	97,754
Clarksburg.....	0	15,250	0	6	800	457,340	26,425	472,590
Huntington.....	9,500	11,800	3	5	5,100	33,525	16,200	60,245
Parkersburg.....	6,500	2,800	2	2	7,710	34,045	26,417	39,655
Wheeling.....	15,130	9,900	3	3	50,560	15,200	95,104	34,690
Total.....	2,462,580	2,787,670	595	603	4,171,653	5,249,503	8,638,182	9,411,819
Per cent of change.....		+13.2		+1.3		+25.8		+9.0

*South Central States*

Alabama:								
Birmingham.....	\$10,110	\$10,000	6	7	\$35,832	\$43,150	\$84,377	\$92,780
Mobile.....	8,250	24,650	6	13	52,817	104,800	79,479	162,254
Montgomery.....	40,100	14,600	14	11	5,460	19,800	68,450	46,162
Arkansas:								
Little Rock.....	16,360	22,750	7	7	852,115	14,146	887,254	53,109
Kentucky:								
Ashland.....	0	1,550	0	2	1,750	50,100	2,900	51,650
Covington.....	9,900	10,500	3	3	7,775	8,250	25,390	24,475
Louisville.....	54,500	49,500	9	8	36,825	93,425	158,800	158,825
Newport.....	0	0	0	0	7,200	1,800	7,700	1,950
Paducah.....	0	4,200	0	4	750	22,825	750	27,025
Louisiana:								
Baton Rouge.....	205,787	14,525	10	18	21,775	28,585	236,932	54,808
Monroe.....	8,700	8,950	3	4	2,445	3,200	21,545	19,835
New Orleans.....	143,853	95,650	43	22	295,856	349,830	585,862	514,700
Shreveport.....	20,102	23,050	12	10	39,086	6,250	85,647	54,380
Mississippi:								
Jackson.....	17,417	11,450	5	5	240	2,425	28,307	25,680
Oklahoma:								
Enid.....	2,925	0	2	0	4,005	1,000	8,355	7,596
Oklahoma City.....	443,200	464,225	47	59	580,750	401,281	1,041,625	898,896
Okmulgee.....	0	0	0	0	150	0	150	250
Tulsa.....	40,700	109,519	9	32	387,307	195,295	444,863	321,980
Tennessee:								
Chattanooga.....	37,900	14,700	12	12	12,200	59,200	87,772	125,557
Johnson City.....	4,450	4,700	3	3	100	15,000	5,450	19,700
Knoxville.....	20,880	25,200	5	8	40,986	246,310	67,902	276,646
Memphis.....	36,400	19,500	18	8	215,930	29,770	342,780	143,217
Nashville.....	126,100	56,750	45	20	32,120	32,960	233,829	108,320
Texas:								
Amarillo.....	24,950	30,645	8	21	328,460	213,264	363,386	248,769
Austin.....	109,617	64,097	42	37	17,186	5,872	189,848	91,134
Beaumont.....	12,500	15,000	8	6	36,355	2,919	73,552	33,088
Dallas.....	178,175	122,590	80	67	16,219	87,584	279,352	354,414
El Paso.....	56,732	18,850	19	6	4,965	1,360	80,110	45,676
Fort Worth.....	59,250	160,458	30	45	300,075	187,827	399,788	379,596
Houston.....	594,550	529,000	143	131	142,450	260,580	763,970	820,730
Port Arthur.....	0	4,671	0	3	3,145	1,975	13,539	17,186
San Angelo.....	3,435	0	3	0	6,025	330	15,265	5,430
San Antonio.....	92,678	116,020	45	60	228,195	62,580	350,483	252,076
Waco.....	20,667	28,667	5	6	4,453	14,733	29,060	61,709
Wichita Falls.....	2,750	0	1	0	400	431,252	13,580	442,354
Total.....	2,402,938	2,075,967	643	638	3,721,402	2,999,678	7,078,052	5,941,957
Per cent of change.....		-13.6		-0.8		-19.4		-16.1

TABLE 6.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, AUGUST AND SEPTEMBER, 1931—Continued

*Mountain and Pacific States*

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings		August, 1931	September, 1931	August, 1931	September, 1931
	August, 1931	September, 1931	August, 1931	September, 1931				
Arizona:								
Phoenix.....	\$48,790	\$29,725	10	8	\$11,045	\$20,060	\$80,328	\$60,275
Tucson.....	22,073	19,450	8	9	3,570	16,927	33,580	42,617
California:								
Alameda.....	0	15,500	0	4	6,465	3,100	20,945	32,625
Alhambra.....	51,700	91,050	19	32	600	5,600	62,425	101,700
Bakersfield.....	22,900	15,300	5	3	1,750	2,197	36,865	26,285
Berkeley.....	84,600	72,890	18	19	88,939	7,875	199,354	152,090
Fresno.....	21,000	60,150	6	11	1,835	5,530	59,046	95,297
Glendale.....	185,450	269,850	44	59	67,555	21,280	264,155	306,925
Long Beach.....	195,050	221,025	70	88	36,100	53,690	289,525	338,110
Los Angeles.....	1,595,222	1,827,576	563	666	1,033,834	672,962	3,069,847	3,097,453
Oakland.....	193,110	161,089	56	45	73,108	68,998	357,897	327,655
Pasadena.....	101,050	35,800	14	10	47,201	9,490	195,263	125,082
Riverside.....		<sup>1</sup> 4,000		<sup>1</sup> 2		<sup>1</sup> 14,215		<sup>1</sup> 37,678
Sacramento.....	126,475	109,000	33	21	110,950	6,550	272,874	155,629
San Bernardino.....	43,500	16,500	9	7	2,425	9,730	48,190	36,595
San Diego.....	280,795	132,005	64	44	135,800	247,016	474,547	466,082
San Francisco.....	694,800	653,665	180	178	1,132,531	687,441	1,979,750	1,512,706
San Jose.....	92,060	72,100	20	19	13,255	23,740	128,490	115,840
Santa Ana.....	10,000	45,750	3	8	0	0	24,038	58,899
Stockton.....	68,661	59,925	17	14	15,520	13,880	90,921	110,871
Vallejo.....	12,400	16,150	3	5	570	550	17,195	27,075
Colorado:								
Colorado Springs.....	8,400	12,700	3	5	650	2,045	14,835	50,971
Denver.....	211,500	205,600	51	54	444,750	40,575	753,015	353,275
Pueblo.....	5,075	9,650	3	5	2,585	2,900	32,435	19,515
Montana:								
Great Falls.....	22,700	1,250	5	1	254,625	29,775	289,080	34,800
New Mexico:								
Albuquerque.....	40,662	34,800	13	7	1,750	3,490	52,900	58,909
Oregon:								
Portland.....	187,500	161,850	49	29	78,510	230,810	353,755	532,020
Salem.....	19,400	8,600	8	2	815	84,598	28,262	101,847
Utah:								
Ogden.....	11,300	7,000	6	4	6,550	300	30,650	11,500
Salt Lake City.....	73,800	66,250	31	19	27,225	11,163	152,690	104,445
Washington:								
Bellingham.....	5,800	8,100	2	3	3,000	60,500	18,570	79,024
Everett.....	0	2,000	0	2	1,570	2,570	17,980	12,600
Seattle.....	210,605	194,400	74	64	585,924	58,505	974,304	417,445
Spokane.....	42,650	68,100	15	24	5,735	37,680	62,340	141,710
Tacoma.....	22,000	37,000	13	15	5,055	6,005	64,305	62,300
Total.....	4,711,028	4,669,700	1,415	1,465	4,201,797	2,423,792	10,552,365	9,054,582
Per cent of change.....		-0.9		+3.5		-42.3		-14.2

*Hawaii*

Honolulu.....	\$291,147	\$493,006	57	105	\$38,076	\$96,379	\$352,398	\$626,435
Per cent of change.....		+69.3		+84.2		+153.1		+77.8

<sup>1</sup> Not included in total.

## European Housing Policies Since the War

THE International Labor Office has recently issued a study of the policy of various European Governments since the close of the war in regard to cheap housing, in which the main question considered is the supply of dwellings at a cost which will bring them within the reach of the poorer workers.<sup>1</sup> No attempt has been made to include all of Europe, nor to cover the whole subject of housing.

Housing problems are still in a state of evolution and governments are striving to find a solution for a number of complex problems. What is needed at the present moment is a volume supplying detailed information on the legislation passed, explaining the economic conditions which have prompted these measures and finally giving some account of the results achieved. It has therefore been necessary to eliminate a certain number of States, either because their experience does not yet appear to be very important, or because their political and economic régimes differ so widely from those existing in other States that no comparisons are possible without a previous investigation of general conditions.

The study gives first a general survey of the conditions which forced the governments to take action in regard to housing, and follows this by detailed accounts of the measures taken in 13 different States.

### Situation at the Close of the War

IN THE years immediately following the war, practically every European country found itself facing a serious shortage of housing. During hostilities there had been a complete suspension of housing work, and at the same time war conditions drove people to the cities. After the armistice, the birth rate rose sharply, and the industrial boom of 1920-21 drew in workers to the cities from every side. Of sheer necessity the governments continued or increased the control of rent and evictions which had been adopted as war measures, but as the pressure increased it became evident that the only permanent solution of the difficulty lay in a revival of building activity. The political disorganization and economic instability in many countries presented serious obstacles to such a program, and in most instances it soon became apparent that the government must undertake a wider and more far-reaching work than it had at first contemplated.

It was coming more and more to be realized that before the war private building enterprise working for a profit had not succeeded in satisfying the whole of the need, even under a normal system of economic freedom. In fact, the poorer classes of the population were unable to pay the rent charged for a suitable dwelling. This situation was further aggravated by the economic difficulties of the postwar period and as it appeared likely that it might last, if not indefinitely, at least for a considerable time, the authorities were faced with a difficult task.

### Postwar Building Difficulties

IN PRACTICALLY every country a period of inflation followed the war, and costs of every kind went up. The cost of building was affected, in addition to the general movement, by the rise in interest, and this combination led to an increase in the rent of new dwellings considerably in excess of the rise in general prices. Meanwhile, however, the protective measures adopted during the war kept the rents

<sup>1</sup> International Labor Offices. Studies and Reports, Series G (housing and welfare), No. 3: Housing Policy in Europe. Cheap home building. Geneva, 1930.



of old dwellings below the general level of prices for a considerable period, and since the old dwellings far outnumbered the new, wages and the cost of living generally were adjusted to the lower figures.

A large section of the population is therefore incapable of paying the higher rents which have to be charged for the new houses. Under the circumstances the construction of working-class dwellings on a commercial basis has become a difficult problem; building can only be undertaken to supply the demand of a small and relatively well-to-do group which is able to pay the high rents or the high cost price of new houses.

Other factors entered into building costs, such as the disorganization of the industry during the war, lack of workers, and disorganization of transportation, which added to the cost of materials, but these are considered as being only temporary and relatively unimportant causes, while the three enumerated above—high building costs, high interest, and restriction of the rent of old dwellings—are held to have been fundamental and universal. The first two, and to some degree even the third, are closely connected with the depreciation of the currency, which occurred in a more or less acute form in every country in the postwar period. The severity of the depreciation and its continuance varied considerably in the different countries, and the difficulty of restoring normal housing conditions varied accordingly. In their experience with inflation, the European countries fall into three groups. In the first, comprising Great Britain, the Netherlands, Sweden, Denmark, and Norway, inflation was comparatively small and the return to pre-war parity was accomplished by 1925 in Great Britain, the Netherlands, and Sweden, by 1927 in Denmark, and by 1928 in Norway. In the second group, comprising Italy, France, Belgium, Czechoslovakia, and Finland, inflation was much more serious and a return to pre-war parity proved out of the question, the currencies being stabilized at rates from 3.5 to 7.7 times higher than the pre-war figures. In the third group, consisting of Austria, Poland, and Germany, depreciation was so great that stabilization was secured only by a complete break with the past, and the introduction of new currencies, which was accomplished by 1925.

In all three groups building costs rose rapidly during the period of inflation and fell when the currency was stabilized, but in practically every country they remained above the general level reached by other prices.

There has been considerable discussion of the reason for the stabilization of building costs at a higher level than general prices. The phenomenon is common to most countries and two main reasons are given to account for it. In the first place after the stabilization of currencies a great increase took place in house-building activity, if not as compared with pre-war years, at least in comparison with the preceding period. This increased activity, as is the case in every industry, caused a certain rise in prices, since the increased output had to be obtained at a higher cost. In the second place, if account be taken of their hours of work, the wages of the majority of workers in the building industry appear to be considerably above the pre-war rates, so that the cost of labor in this trade is relatively higher than in many other industries.

The control of the rent of old dwellings as a hindrance to the resumption of building after the war is discussed at some length. Whatever its effect in that direction, its benefits are held to have been greater than its disadvantages.

Rent restriction, by shielding the working classes from the full effects of inflation, has facilitated the task of adapting wages to the new conditions, thus obviat-

ing many industrial difficulties by preventing an undue reduction in the workers standard of life. It is true that the restrictions have often placed landlords in a difficult position, but it should be recalled that in many countries rates of interest on mortgages have been appreciably reduced by the depreciation of the currency as the value of the mortgage loans raised on property has declined like that upon all capital bearing a fixed rate of interest.

### Extent of Housing Needs

AN EFFORT is made to present a comparative view of the needs for new housing in the different countries, and of the results of the governmental aid, but the basis of the data differs so widely from country to country that the results are unsatisfactory. In general it may be said that all the countries faced, at the close of the war, a shortage of low-cost housing and a problem of overcrowding. Each Government found as it attacked the problem that three lines of work must be undertaken. They must make up the deficit which accrued during the war, and in some cases from an even earlier period; they must meet the current needs due to obsolescence of old buildings and shifts of population; and they must provide for the natural increase in population. In addition, in most cases a considerable amount of work was needed to clear away the slums which had developed under pre-war conditions and to replace them with sanitary dwellings.

### Methods of Government Aids

THE governments have encouraged house building by giving financial aid, by exempting new dwellings from taxation, by providing builders with sites on easy terms, and to some extent by trying to control the rise in building costs. Of these, the financial aid has been by far the most important method. This has been given principally by means of subsidies and credit facilities. Sometimes the subsidies were lump-sum payments made to the builder as the work proceeded or on its completion, and sometimes they were annual payments for more or less lengthy periods. The credit facilities varied from a mere guaranty on the part of the authorities that interest and amortization charges would be regularly paid to a direct loan from the authorities themselves on easy terms. The particular form of aid used, the method of raising it, and its cost to the Government depended largely upon the circumstances of the individual State.

### Bodies Initiating Building Work

ONE marked effect of Government aid to housing has been the increase in the amount of work done by public authorities and public utility societies. Up to 1914 practically all dwellings were built by private enterprise working for a profit, while since then a considerable proportion has been done by nonprofit-making bodies. Table 1 shows the relative amounts accomplished since the war by public authorities, housing societies, and private builders. For the most part, the figures refer only to new dwellings, but in Sweden and, from 1921 to 1925, in the Netherlands they include dwellings which have been rebuilt. In England and Wales dwellings erected by housing or public-utility societies are included with those put up by private enterprise.

TABLE 1.—BUILDING ACTIVITIES OF DIFFERENT BODIES IN VARIOUS COUNTRIES SINCE THE WAR

Countries and towns covered	Period covered	Per cent of the total number of dwellings erected by—		
		Public authorities	Housing societies	Private enterprise
England and Wales (whole country).....	1919-1929	36		64
Netherlands (whole country).....	1921-1929	11	18	71
Sweden (all towns).....	1919-1928	10	13	77
Denmark (all towns).....	1920-1929	16	31	53
Norway (5 most important towns).....	1914-1928	47	29	24
Czechoslovakia (78 towns with population over 10,000).....	1928-1929	10	16	74
Finland (all towns).....	1924-1928	2	21	77
Austria (whole country).....	1914-1928	73	9	18
Poland (Warsaw).....	1922-1929	5	15	80
Germany (whole country).....	1927-1929	11	31	58

It will be noted when the postwar period is considered as a whole, that at least one-quarter of the new houses in all countries have been erected by bodies not working on a commercial basis. In some countries, such as Great Britain and Germany, the proportion exceeds a third. These facts constitute a marked development as compared with pre-war conditions.

### Conclusions

AN EFFORT is made to compare the results of the housing work in different countries, but conditions vary so widely that a satisfactory comparison can not be made. Considering the whole situation, however, it is felt that the housing policy followed by the various governments since the war has been an unquestioned success.

With a few exceptions the aims which they set out to achieve have been or are in course of being realized. In several countries the acute shortage of dwellings which existed immediately after the war has disappeared, while in most of the remaining States the measures taken to reduce the deficit have shown that there is a possibility of its disappearance within a reasonable time. Broadly speaking, the dwellings erected are of a better quality than those built before the war.

The very success of the work, it is held, is likely to make it a permanent function of the governments. As the first problems are solved new difficulties become apparent. When the acute shortage of shelter is reduced, the abolition of the slums becomes insistent. The work already done has made it evident that for an indefinite time the poorest classes will be unable to pay an economic rent for decent housing. The question of rural housing calls for special treatment. "Indeed, the task which remains to be accomplished surpasses that which has been achieved or is in course of being completed."

The wholesale distribution of direct and indirect subsidies will not, it is thought, be continued indefinitely, but some traces of it will probably remain as permanent features. The development of the public utility societies has been fostered to a point which may have far-reaching social consequences. The efforts made by certain governments to encourage experiments directed toward the reform of building methods and the rationalization of the building industry generally are also likely to have important consequences, which will not be fully apparent for years to come. A beginning has been made



in the rationalization of building finance, and the measures already taken in the field of town and regional planning may be regarded as a first step toward a rationalization of land policy.

Whatever the action taken by the authorities to improve the housing conditions of the working classes be called, it is clear that at the present time there is still ample scope for their activity. The success which has so far crowned their efforts is a strong argument for the continuance of similar action, although the exact form and direction which it is likely to take can not at the present stage be determined with any certainty.

The housing policy of governments may therefore be considered as being in full growth and capable of further development in new fields. It may become one of the most vital chapters of social policy, and thus has a direct interest for the working classes, whose material and moral standards of life may thereby be considerably improved.

In the following pages a summary is given of the measures adopted by Great Britain and Holland, two countries of the first group in which inflation was neither severe nor long continued; by France, belonging to the second group, in which it was more severe and in which the currency was stabilized at a lower valuation; and by Germany, a member of the group in which inflation reached its most exaggerated form and in which the currency had to be reestablished on a new basis. The methods by which the governments tried to meet the housing shortage are, naturally, much the same in the different countries, but the emphasis laid on subsidies, loans, credit backing, and tax exemptions varied according to the character and circumstances of the different peoples. In general the governments, even when they furnished the money, did little building themselves, preferring to work through public utility bodies, private persons, cooperative housing societies, and the like, but to this rule Austria is somewhat of an exception.

In Vienna three-quarters of the dwellings have been built by the municipality.<sup>2</sup> In the rest of the country the authorities are responsible for more than half the dwellings erected, if those built by public employers are included. Unlike the authorities in most other countries, the Austrian authorities have invested most of the funds which they raised in building schemes carried out by themselves. The support given to building societies and private persons has been on a much smaller scale, even outside the capital.

### Housing Policy of Great Britain

THE postwar inflation was shorter and less extreme in Great Britain than in any other of the countries participating in the war. Prices, which at first rose sharply, fell rapidly during 1921 and after 1922 became practically stable at about 60 per cent above the pre-war level. The money market soon became fairly normal, and a sufficient supply of capital was available. Savings banks deposits rose steadily from £356,500,000 in 1921 to £409,500,000 in 1929, capital issues rose from £68,000,000 in 1923 to £176,000,000 in 1927, and to £159,000,000 in 1929, while discount rates fell from 6.10 per cent in 1921 to 3.49 per cent in 1923, and then rose to 5.50 per cent in 1929. The cost of building followed the general movement of prices, but did not go so far in its downward swing. The index number of seven building materials which stood at 233 in 1919 rose

<sup>2</sup> A full account of the measures adopted by Vienna to relieve the housing shortage is given in the *Labor Review*, May, 1931, pp. 6-16.

to 268 in 1921, and afterward moved irregularly, reaching its lowest point, 221, in 1923, and standing in 1927 at 248. The index numbers of hourly wage rates fell for bricklayers from 281 in 1920 to 200 in 1928, for carpenters and joiners from 280 to 199, and for unskilled labor from 362 to 222.

While these changes were going on, rents of old houses were strictly controlled, and consequently showed much less variation. A first measure of control was passed in 1915 as a war act, and applied only to small dwellings. Other acts were passed in 1919 and 1920 extending the restrictions to dwellings of much higher value, so that a large proportion of the existing houses were under control. The act of 1919 permitted an increase of 10 per cent in rent, and the act of 1920 allowed another increase of 15 per cent, and made various adjustments for increased cost of maintenance and repair. Allowances were also made for increased local taxes, so that rents might be raised by approximately 50 per cent over their former level. In 1923 an act of a different kind was passed, providing for the decontrol of a rented house whenever it should come into direct possession of the landlord, unless through an eviction of a tenant for nonpayment of rent; houses let after a certain date on new leases or agreements were also free from control. These terms were somewhat limited by an act passed in 1924, with a view to lessening the frequency of evictions, but a substantial number of houses were decontrolled under the two acts. This usually meant an immediate increase in their rents. Meanwhile the increase in building costs made it impossible to build on an economic basis the low-rent houses needed by the more poorly paid workers, and the demand for housing remained unsatisfied.

#### Extent of Need

Various surveys of the situation were made in order to determine the extent of the housing shortage, but as these were made on different bases, they varied so widely that results were unsatisfactory. In 1921 an estimate placed the number needed in England and Wales to meet the existing need at 323,000, with 134,000 additional to replace old dwellings unfit for habitation. The Joint Commission on Labor Problems at the end of the war had estimated the deficit at 1,000,000 houses.

In Scotland an inquiry made in 1919 fixed the number of new dwellings required at 131,000, a figure which has been accepted fairly generally.

In considering the housing needed, it was emphasized that before any improvement in the amount of overcrowding could be made, fairly large annual requirements must be met. "These are broadly estimated at 100,000 dwellings a year in England and Wales (70,000 to provide for the increase in the population and 30,000 to replace dilapidated dwellings) and 10,000 in Scotland."

#### Policy as to Direct Financial Aid

The Government's policy in regard to direct aid has gone through several phases, subsidies being offered under each to private builders, to public-utility societies, and to local authorities, the amount and conditions of the subsidies being varied. In 1919 two acts were passed

under which liberal subsidies were offered, but owing to the rapid rise in costs in 1919-1921, these caused so heavy a charge upon public funds that the plan was dropped abruptly in 1921. In 1923, prices being lower, the Conservative Government in power introduced a new system of subsidies to last for two years only, but in 1924 the Labor Government came into power and expanded the program.

The housing (financial provisions) act, 1924, created a new system of subsidies on a larger scale intended to be applied concurrently with that laid down by the 1923 act; at the same time the period during which the two schemes were to remain in force was extended to 15 years so as to allow the building industry time to expand sufficiently to meet the existing need.

This act permitted a revision of the subsidies from time to time, and in accordance with this provision the Conservative Government, having returned to power, twice reduced the amount of the subsidies, once in December, 1926, and again in December, 1928.

#### Amount and Terms of Aid Granted

Under the acts of 1919 the aid offered varied according to the building agency receiving it. In the case of local authorities, the State undertook to cover the annual loss based on a loan repayment period of 60 years, subject to the contribution by the authority of an amount raised by a special tax of a penny on the pound, in addition to other local taxes. The rents which might be charged were stipulated, and the type of houses for which assistance would be given was strictly defined.

A subsidy based on the interest and amortization charges was given to public-utility societies. The State undertook to cover 30 per cent of this amount, and also granted certain credit facilities. The State's contribution was afterward increased to 50 per cent for the period ending March 31, 1927, and 40 per cent thereafter. The management of the houses and the rents to be charged were left entirely to the societies.

For private builders, the State subsidies took the form of non-repayable lump-sum grants. These at first ranged in amount from £130 to £160, according to the size of the house, but it was provided that in April, 1920, they were to be increased to £230 to £260. Special directions were issued specifying the types and limiting the total cost of the houses in respect of which assistance would be given.

As stated above, this policy was found too burdensome as prices rose, and in 1921 the policy was altered.

It was decided to suspend the grant of further subsidies and to limit the Government program to the houses already built by local authorities and public-utility societies, or in course of construction, or covered by tenders approved on that date, and to houses built by private enterprise which were completed by a prescribed date.

#### Acts of 1923 and 1924

The act of 1923 limited the amount of the Government subsidy to a yearly subsidy of £6 per approved house for 20 years. Local authorities might utilize this amount either to build themselves, or to promote building by public utility societies or private builders. In either case the aid might be given as a lump sum, or as an annual



payment toward the interest and amortization charges, or as a remission of taxes, thus permitting the house to be rented at a lower rate than those not receiving such aid. The Government might also make direct grants to public utility societies which did not wish to receive aid through the local authorities. Careful specifications were laid down as to the kind of houses for which the subsidy would be given.

The Labor Government, which took charge a few months after the passage of this act, considered its terms insufficient to supply the needed stimulus to building, and also held that the houses thus provided were too expensive for the poorer classes either to buy or to rent. They therefore passed the act of 1924, leaving the act of 1923 still effective. Under the later act, subsidies of £9 (£12 10s. in agricultural districts) were offered for 40 years. Special conditions were imposed as to houses built with this aid.

For instance, they could not be sold, but had to be let at rents representing the average existing rent of houses built in the district before the war. Rents could only be raised above that level if the loss borne by the local authority exceeded the equivalent of £4 10s. a year for a period of 40 years, in which case they might be raised sufficiently to reduce the deficit to that amount. The act further laid down that in selecting the tenants reasonable preference should be given to large families. The houses were not to be sublet without the approval of the authorities. In the event of failure to observe the special conditions laid down, the subsidy might be reduced.

As mentioned above, the subsidies granted under these acts were twice revised. By the first revision, made in December, 1926, subsidies were reduced in England and Wales, but not in Scotland. By the second, made in December, 1928, it was provided that no further subsidies under the 1923 act were to be granted in England and Wales for houses not completed before October, 1929, and that in Scotland the subsidy was to be reduced to £4. The subsidies under the 1924 act were also reduced, but upon regaining power in 1929, the Laborites repealed this clause and maintained the rate set by the 1926 revision, £7 10s., instead of the original £9.

#### Cost of Government Aid

No exact estimate can be made of what the housing program has cost and will cost the Government. The costs under the acts of 1919 were to be spread over a long period, and were to vary according to the returns from a special tax imposed by the local authorities. Of them, the report says:

The annual subsidies (excluding lump-sum grants to private builders) for these building schemes in England and Wales involved a treasury expenditure which rose quickly to £7,860,000 in 1924 and subsequently fell gradually to £6,800,000 in 1928; the expenditure in Scotland averaged about £1,000,000 a year.

The costs under the acts of 1923 and 1924 are shown in the following table. The amounts spent in England and Wales under the act of 1924 were very small during 1924 and 1925, and are included for those years with the expenditures under the act of 1923.

TABLE 2.—ANNUAL EXPENDITURE IN SUBSIDIES UNDER THE HOUSING ACTS OF 1923 AND 1924

Year	England and Wales		Scotland	
	Act of 1923	Act of 1924	Act of 1923	Act of 1924
1924.....	£97,875	-----	£252	-----
1925.....	528,229	-----	7,117	£750
1926.....	948,254	£474,436	43,012	8,490
1927.....	1,509,429	1,167,022	77,849	95,582
1928.....	1,976,897	1,865,713	79,984	232,313

Attention is called to the fact that the expenditures shown in Table 2 are much less than the amounts spent under the 1919 acts. This is due in part to the provisions strictly limiting State participation and in part to the reduced cost of building during the later years. The amount of housing secured under the different acts is shown in Table 3, in which dwellings erected by public-utility societies are included with those of private enterprise.

TABLE 3.—NUMBER OF DWELLINGS BUILT WITH STATE AID, 1919 TO 1929, AND AGENCY BY WHICH BUILT

Act under which built	England and Wales			Scotland		
	Local authorities	Private enterprise	Total	Local authorities	Private enterprise	Total
Acts of 1919.....	170,090	43,731	213,821	25,129	2,745	27,874
Act of 1923.....	73,895	362,738	436,633	4,091	14,525	18,616
Act of 1924.....	283,784	4,792	288,576	29,739	636	30,375
Total.....	527,769	411,261	939,030	58,959	17,906	76,865

#### Assistance by Means of Credit Facilities

Aid in raising the capital needed for building is an important method of advancing housing. In Great Britain the principal contribution of this kind was the action taken by local authorities to finance their own building schemes, using for this purpose both their ordinary borrowing powers and the special powers conferred on them by the different acts relating to the housing of the working classes. The loans thus raised formed an important part of the capital invested in building operations since the war. "On March 31, 1930, they were estimated to amount to approximately £400,000,000."

In addition to financing their own building operations the local authorities had power to advance loans to private persons and public-utility societies for the construction of working-class dwellings under specified conditions. The credits thus authorized during the seven years 1923-1929 amounted to £69,131,000 in England and Wales, and to £12,571,000 in Scotland.

#### Other Measures

Slum clearing has been carried on since the close of the war, but up to the present has been rather overshadowed by the pressing need of providing new dwellings. In Scotland some 2,500 houses were rebuilt and a proposition was under consideration to recondi-

tion another installment of 6,000 houses. In England and Wales the clearance schemes undertaken between 1919 and 1929 provided for the demolition of 10,000 insanitary dwellings. In 1930 a new act was passed for the purpose of promoting slum clearance on a larger scale, but as yet its results are hardly apparent.

Special measures were undertaken for rural housing, the Government subsidies for this purpose being larger than for urban dwellings, and additional assistance being given in the matter of altering and adapting old buildings for use as agricultural dwellings.

The land policy of the Government has been changed since the war. Previously, local authorities might acquire land for housing purposes at a compensation based on a fair market value of the land with the buildings upon it. Under the housing act of 1919 a different plan was adopted.

The compensation to be paid for land included in an area owing to the bad sanitary condition of the buildings thereon was the value of the land as a cleared site and the compensation has to be further reduced where the land or part of the land was, under the scheme, required to be used for rehousing or as an open space, by a percentage representing the difference between the unrestricted value of the land and its value subject to the rehousing requirement. This basis of compensation has also been adopted in the act of 1930, except that no reduction of compensation is required by reason of any land being intended to be appropriated for an open space.

A reduction of building costs and a rationalization of the building industry have also been attempted by the Government, and experiments have been made as to different kinds of building material. In Scotland 2,552 so-called steel houses were put up by the Government to test the feasibility of substituting metal for wood and brick in dwellings. A building research station has been established, and is endeavoring to promote, among other matters, the adoption of more scientific building methods in place of practices "which too often are still haphazard and out of date."

#### Results of Government Housing Policy in Great Britain

The two tables immediately following show the number of dwellings built with and without Government aid each year beginning with 1919, and show also by what agency they were erected.

TABLE 4.—NUMBER OF HOUSES BUILT IN ENGLAND AND WALES WITH AND WITHOUT STATE AID, 1919 TO 1929, BY YEARS AND BUILDING AGENCY

Year	With aid of State subsidies			By unassisted private enterprise	Grand total
	By local authorities	By private enterprise	Total		
1919.....	576	139	715	1 53,800	1 251,988
1920.....	15,585	12,964	28,549		
1921.....	80,783	20,288	101,071		
1922.....	57,535	10,318	67,853		
1923.....	14,353	4,311	18,664	67,546	86,210
1924.....	20,624	47,045	67,669	69,220	136,889
1925.....	44,218	62,769	106,987	66,439	173,426
1926.....	74,093	79,686	153,779	63,850	217,629
1927.....	104,034	74,548	178,582	60,332	238,914
1928.....	55,723	49,069	104,792	64,740	169,532
1929.....	60,245	50,124	110,369	91,691	202,060
Total.....	527,769	411,261	939,030	537,618	1,476,648

\* Estimated number.



TABLE 5.—NUMBER OF DWELLINGS BUILT IN SCOTLAND, WITH AND WITHOUT STATE AID, 1920 TO 1928, BY YEARS AND BUILDING AGENCY

Year	With aid of State subsidies			By unassisted private enterprise	Grand total
	By local authorities	By private enterprise	Total		
1920	891	154	1,045	12,550	126,169
1921	4,269	1,194	5,463		
1922	9,445	1,054	10,499		
1923	6,459	153	6,612		
1924	2,956	1,440	4,396	1,553	5,949
1925	4,827	3,375	8,202	1,852	10,054
1926	8,411	4,105	13,634	1,812	15,446
1927	15,642	3,406	20,158	2,017	22,175
1928	14,747	3,025	18,066	2,147	20,243
Total	67,647	17,906	88,105	11,931	100,036

<sup>1</sup> Estimated number.

The proportion of the dwellings built by the local authorities is noticeable. In England and Wales they constructed well over one-third, and in Scotland two-thirds, of the total number put up since the war. They did little in this line before the war, and their change of policy is regarded as a direct result of the Government grants. The subsidies also had a considerable effect upon the private builders, more than half of the dwellings they erected having been built with this help. The impetus given to building has gone far toward solving the original problem.

In England and Wales the authorities are in sight of realizing the primary object of their housing policy. Indeed, since 1924 the number of dwellings constructed, in addition to the 100,000 dwellings needed to meet normal annual requirements, slightly exceeds 500,000 which number is nearly sufficient to cover the deficiency caused by the stagnation of the building industry during the war and the years immediately following.

In Scotland the position is still difficult. The 27,000 dwellings erected between 1926 and 1928, in addition to the minimum requirements of 10,000 dwellings a year, do not yet cover one-quarter of the deficiency of 118,000 dwellings, estimated in 1925. Nevertheless in view of the remarkable development of subsidized building schemes during recent years and the endeavors made to rebuild unhealthy areas, a great improvement may be expected.

A further effect of the Government's policy has been an improvement in the quality of housing, since the subsidy was granted only on condition that certain standards were observed. The new houses constitute a marked advance over those built before the war, not so much in size or number of rooms, but from the point of view of planning, sanitation, and comfort.

The conditions as regards sunlight and ventilation are greatly superior, and the space surrounding the houses is considerably larger. Indeed, the 1923 act, as amended by that of 1924, makes it generally compulsory to restrict the number of houses per acre to 12 in urban districts and to 8 in agricultural areas. There is no doubt that before the war the number of houses to the acre was much larger.

#### Housing Policy of the Netherlands

IN THE Netherlands the inflation of the currency following the war was relatively slight and did not last long. In 1918 the index number of general prices reached its highest figure, 276, as compared with the pre-war number, but after 1922 the currency returned almost to par

and by 1925 normal conditions had been restored. Building costs reached their peak towards 1919 and then fell gradually until after 1923 they were stabilized at about 60 per cent above the pre-war level. The index number of hourly wage rates for building workers rose to 285 for carpenters and bricklayers and to 297 for unskilled labor in 1921, and then fell to 236 for carpenters and bricklayers and 250 for unskilled labor in 1927. After 1925, building costs were approximately stable.

Rents of old dwellings were controlled for only a short time. An act passed in March, 1917, prohibited raising the rents of small dwellings, and a second act, passed a year later, extended control to all dwellings. This, however, permitted certain increases, as follows:

Twenty per cent over the rent fixed in 1916 for small dwellings and 10 per cent over the 1918 rent of dwellings subjected to regulation for the first time; the local committees were further empowered in special cases to permit increases which might amount to 50 and 37 per cent for the two categories of dwellings. Under the provisions of the act of June 2, 1923, these increases became automatic. When, shortly afterward, prices fell nearly to the level of the legal rents, the local committees were gradually abolished and the regulations withdrawn altogether. These practical measures were afterward officially indorsed by the act of January 19, 1927, which provided for a definite return to freedom of contract as from July 19 of that year. Rents had already risen gradually before that date, and were slightly above the level of general prices.

#### Extent of the Need

Estimates as to the number of houses required varied, but in 1920 a fairly liberal calculation placed the number immediately necessary at 100,000, while the average number required each year, including those needed to replace houses which had fallen into unfit condition, was placed at 37,000.

#### Policy of the Government

The Government adopted two lines of action. It extended considerably the program it had adopted before the war to encourage the building of low-cost houses, and it passed a series of emergency acts, dealing with the special need, repealing these when the situation improved.

#### Extension of Pre-War Program

The pre-war policy dealt exclusively with the provision of low-cost dwellings by the local authorities and public-utility societies. It was based on an act passed in 1901, which provided that State aid might be given, either in the form of loans, or as subsidies.

Loans may be granted to local authorities or through them to public-utility societies, but in the latter case the local authority is responsible for the payment of the interest and redemption charges. These loans, which may be granted up to 100 per cent of the cost of building, bear a comparatively low rate of interest (equivalent to the interest paid on the market for Government securities) and are repayable in 50 years. Subsidies are provided in cases where a rent sufficient to insure a reasonable return on the capital invested in the building can not be obtained, either because building costs have been raised by extraordinary expenses or because the occupants belong to a very poor class of the population; in principle, half of the subsidies is paid by the State and the other half by the local authorities. Up to the end of 1914 a total of 9,900 houses were erected under the provisions of the 1901 act.

During and immediately after the war the provisions of this act were used freely, loans and subsidies being given on a more liberal

scale than in normal times. As soon, however, as private building began to revive, the Government lessened its efforts, and from 1920 onward reduced the amounts which it would advance. By 1922 State aid was given only for the smallest dwellings, and in 1926 the special grants were abandoned altogether, and the pre-war program was again adopted.

The Government restricted its support to the cheapest class of dwellings such as could not be provided by private enterprise in sufficient numbers, and to houses built to replace those demolished in carrying out slum clearance schemes. Moreover, for some years this very limited program was carried out only on a small scale, as the Government was anxious to reduce expenditures as much as possible. But after 1928 its activity was again increased to some extent.

#### Expenditures and Results Obtained

During the war and the period immediately following it the loans were made exclusively by the State. The amount laid out in loans and the number of dwellings provided with this aid are shown in Table 6:

TABLE 6.—GOVERNMENT LOANS TO LOCAL AUTHORITIES AND PUBLIC-UTILITY SOCIETIES, AND NUMBER OF WORKING-CLASS DWELLINGS PROVIDED WITH THIS AID, 1918 TO 1928

Year	Amount of loans (in million gulden) granted to—		Number of dwellings built by—	
	Local authorities	Public-utility societies	Local authorities	Public-utility societies
1918	9,386	45,012	1,737	7,533
1919	17,950	79,802	2,987	13,081
1920	25,730	130,913	3,530	18,691
1921	36,989	138,133	3,595	19,213
1922	11,504	24,141	1,832	4,735
1923	9,567	12,841	2,828	3,698
1924	4,227	6,327	1,110	1,553
1925	8,900	2,900	1,173	1,032
1926	441	1,773	235	607
1927	3,620	2,576	1,099	925
1928	387	12,521	175	2,694

It will be noted that there was a large increase in the loans made during the time of greatest shortage and a progressive decline after 1922; in 1926 there was a big drop in the amount advanced, but in the two years following it they again slightly increased.

The system of subsidies or grants was used only during the period of the most acute housing shortage. In principle, three-quarters of the amount was to be furnished by the State, and one-quarter by the local authorities. At first the subsidies were intended to cover such an annual deficit as might occur when normal rents were charged and the property was carefully managed, the deficit being met for the whole period of 50 years required for the redemption of the invested capital. Later, this was found to be too expensive, and rents were required to cover the interest on a certain proportion of the building cost (50 to 70 per cent according to the size of the house) before the State undertook to cover the balance. Gradually the amount to be covered by rent was increased, and in January, 1924, the special war subsidies were abolished. Thereafter subsidies were restricted to 50 gulden per dwelling, and the State contributed only half.



The amounts given in new subsidies each year and the number of dwellings provided with such aid are shown in the following table:

TABLE 7.—STATE SUBSIDIES FOR WORKING-CLASS DWELLINGS, 1917 TO 1924

Year	Amount of fresh annual subsidies granted	Dwellings built with aid of these subsidies	Average subsidy per dwelling
	<i>Gulden</i>		<i>Gulden</i>
1917.....	774, 291	10, 858	71
1918.....	983, 567	10, 087	97
1919.....	1, 613, 792	13, 832	117
1920.....	2, 855, 960	20, 157	142
1921.....	3, 050, 492	21, 854	140
1922.....	328, 038	4, 123	80
1923.....	134, 106	4, 046	33
1924.....	57, 802	760	76

As the subsidies are granted for a period of years, the system throws a considerable burden on the State, on account of the heavy obligations incurred while the housing shortage was most acute.

In 1926, the year when the expenditure on this item was at its peak, it amounted to 8,700,000 [gulden], 1,900,000 for houses built by the local authorities and 6,800,000 for those erected by the utility societies. By 1929 it had fallen to 7,100,000:

#### Emergency Legislation to Encourage Private Building

An act of 1918 provided for a lump-sum subsidy to cover the difference between the actual cost of a dwelling and an estimated cost, the interest on which was to be covered by the rent.

This estimated cost was at first calculated at 150 per cent and later at 200 per cent of the pre-war building cost. Seventy-five per cent of the subsidy was paid by the State and 25 per cent by the local authorities, who were responsible for examining applications and distributing the grants.

The system was modified in November, 1920, when the subsidy was calculated according to the superficial area of the building at the rate of 20 gulden per square meter, with a maximum of 2,000 gulden per house. During the next two years the maximum was reduced several times, and at the end of 1923 the subsidy was abolished altogether.

The State also granted mortgage loans, guaranteed by the local authorities, but this plan was but little used as the rapid recovery of the money market made it superfluous. The extent to which these two forms of aid were used is shown in Table 8:

TABLE 8.—LOANS AND LUMP-SUM SUBSIDIES GRANTED UNDER REGULATIONS OF NOVEMBER, 1920

Year	Lump-sum subsidies	Dwellings put up with aid of subsi- dies	Loans granted	Dwellings put up with aid of loans
	<i>Gulden</i>		<i>Gulden</i>	
1921.....	44, 760, 000	25, 281	66, 643, 000	14, 232
1922.....	23, 115, 000	29, 946	11, 498, 000	4, 209
1923.....	10, 010, 000	33, 336	-----	-----

Although these subsidies and loans were intended to promote private building, local authorities and employers took advantage of them for their own building programs, so that of the 88,563 dwellings put up with the aid of the subsidies 15,341 were erected by building societies and 8,959 by local authorities, and of the 18,441 aided by loans 3,016 were built by agencies other than private builders.

After 1923 the State continued to give aid in the form of loans on second mortgages. These might amount to 20 per cent of the building cost, with a maximum of 600 gulden per dwelling, and were repayable after 20 years. This form of aid has not been used to any great extent.

#### Other Forms of Assistance

These have not been numerous. Most of the larger municipalities have for some years past made it a practice to acquire land for building on the outskirts of the towns, on which they may either erect houses themselves or permit other building agencies to do so. A study of building methods has been made, and the problem of rationalization is being considered. To some degree the standardization of different types of working-class dwellings has received attention.

#### Dwellings Produced by Different Agencies

Up to 1921 no figures are available for the country as a whole showing the number of dwellings provided yearly. The following table gives the dwellings produced from that date onward, by each form of building agency:

TABLE 9.—BUILDING ACTIVITIES OF DIFFERENT AGENCIES IN THE NETHERLANDS, 1921 TO 1929

Year	Number of dwellings constructed by—				
	The State, authorities other than local, and the railways	Local authorities	Public-utility building societies	Private persons	Total
1921.....	636	5,687	19,298	14,743	40,364
1922.....	130	6,808	13,622	24,936	45,496
1923.....	94	5,449	9,590	27,969	43,132
1924.....	107	3,574	8,736	34,295	46,712
1925.....	41	4,059	8,538	34,552	47,190
1926.....	100	2,916	4,749	41,068	48,833
1927.....	69	2,759	4,801	42,617	50,246
1928.....	44	1,191	5,542	40,558	47,335
1929.....	64	2,242	3,221	39,820	47,347

A notable feature of Table 9 is the activity of the public-utility building societies during the period of liberal Government help. During the year 1921 they erected nearly half the total number of dwellings put up in the whole country.

But this development was short lived. When the Government curtailed its financial assistance, public-utility building declined nearly as rapidly as it had grown; in 1928 and 1929 it constituted only some 15 per cent of the total, but in spite of this the activity of the societies, from the point of view of numbers, still greatly exceeds that displayed before the war. As to private building enterprise, it developed rapidly as soon as normal conditions of production were restored, and its output far exceeds pre-war production.

## Results of the Government Policy

In 1920, as mentioned above, it was estimated that an average of 37,000 new dwellings annually was needed to meet the normal requirements of the Netherlands. On that basis, the dwellings constructed between 1921 and 1929, inclusive, showed an excess of 93,000, so that the estimated deficit of 100,000 has been nearly made up.

The new dwellings are, as a rule, smaller than those built before the war, but they have been carefully planned, and are more comfortable and convenient. The most common type of working-class dwelling measures from 40 to 45 square meters, and generally consists of a living room, a small kitchen, and either two bedrooms or one large and one or two small bedrooms. Most of the houses built by private enterprise since the war are too expensive for working-class occupancy, so that the decrease in the activity of the public-utility societies, which specialized in the production of workers' dwellings, has diminished the progress made toward meeting the needs of the poorer classes. The deficiency in the supply of middle-class dwellings has been largely made up, and there is even a surplus of such dwellings in some of the towns, but the problem is not yet solved for the workers. There is general agreement that to be within their reach annual rents should not exceed 350 gulden for skilled and 250 gulden for unskilled workers, but the proportion of new houses to be let at or below these figures has decreased noticeably since the Government aid was withdrawn. In Amsterdam, for instance, of the new dwellings completed in 1921, 5 per cent were to rent at from 130 to 208 gulden annually, and 45 per cent at from 208 to 350 gulden; in other words, 50 per cent might be considered as available for workers. Of the dwellings completed in 1927, none came within the lower rent group and only 8 per cent within the group renting at from 208 to 350 gulden; 92 per cent, that is, were middle-class, not working-class dwellings.

It is true that in Amsterdam the decline seems to have been more marked than elsewhere. In Rotterdam, for instance, 37 per cent of the dwellings built in 1926 were let at less than 350 gulden. But the problem admittedly exists in more or less acute form throughout the country.

It is for this reason that in spite of the great progress made by private enterprise without any assistance from outside, demands are made in many quarters for a resumption of State housing programs.

## Housing Policy of France

FRANCE belongs to the second group of countries, in which inflation was more severe and continued longer than in the first, and in which stabilization was effected at a lowered value of the currency.

After some fluctuations, the price of the dollar in 1923 rose to about 3 times the pre-war value at par; in 1924 it attained 4 times, and at the end of 1926, when the crisis was at its height, 6 times the value at par. Stabilization was achieved in practice in December, 1926, at 4.9 times the pre-war value, but was not confirmed by legislation until June 24, 1928.

Up to and including 1926, interest and prices rose as a consequence of inflation, but after stabilization they became nearly stationary at a level below the 1926 figure. Building costs, however, continued to rise, their index, as compared with that of general wholesale prices, being as follows:



TABLE 10.—INDEX NUMBERS OF BUILDING COSTS IN PARIS AND OF GENERAL WHOLESALE PRICES, 1921 TO 1929

[1914=100]

Year	Building costs	General wholesale prices	Year	Building costs	General wholesale prices
1921.....	374	332	1926.....	577	754
1922.....	360	332	1927.....	622	636
1923.....	390	417	1928.....	610	639
1924.....	422	475	1929.....	696	623
1925.....	450	554			

This naturally discouraged building, which was further hampered by the policy of rent restriction adopted during the war and continued, with only gradual modifications, up to the time of this study. The effect upon rents is shown by the fact that in 1929 the index figure of rents stood at 300, of food at 590, of clothing at 604, and of heating and lighting at 539. It is explained, however, that in the case of many dwellings let at moderate rents, increases have been made by agreement which have brought the rents actually paid considerably above what the landlord had a right to enforce.

Owing to these three factors—monetary stringency, increase in building costs, and rent restriction—the building industry came to an almost complete standstill. After 1926, interest fell, which improved the situation somewhat, but the other two factors remained unchanged, and building continued stagnant. This appears clearly in the figures as to the number of permits for dwelling houses issued in Paris from 1920 to 1929, inclusive, which amounted only to 7,403, whereas for the single year 1913 it had been 1,849.

#### Extent of the Need

A distinction must be made between the special needs of the devastated districts and those of the rest of the country. In the first case, circumstances were exceptional, and the conditions were remedied as rapidly as possible, but this formed no part of the general housing policy and is not considered in this study. Estimates of the need apart from the devastated areas differ widely, ranging from a calculation in 1920 that the building of 500,000 dwellings within the next 10 years would be necessary to relieve the shortage then existing, to an estimate in 1927 that there was immediate need for 400,000 dwellings. In that same year another authority estimated that as a result of the accumulated shortages 1,000,000 dwellings were required at once, 250,000 of which should go to replacing "downright slums," or houses which had reached a condition which called for their demolition.

#### Legislative Basis of Policy

Legislation for promoting the provision of cheap housing had been adopted in France as early as 1894, and the law of that year, variously amended and altered, formed the basis of public action in the matter up to 1922, when the existing legislation was codified and simplified. In July, 1928, a law known as the Loucheur Act was passed, providing new machinery and wider resources for housing activities. Under all this legislation the aid offered was in the form of grants either of credit

facilities or of direct subsidies, usually the former. Grants were made only to local authorities or to certain approved organizations formed mainly for the purpose of promoting cheap housing.

#### Work Under the 1922 Act

Under the provisions of this act State aid is restricted to "cheap dwellings," and the number of rooms, the minimum floor space, and the maximum rent value or building cost are carefully stipulated. In addition it is provided that such dwellings are to be occupied only by persons of small means and workers mainly supported by their earnings. The credit facilities granted by the State mainly take the form of loans at a low interest to building and credit societies, and they may be used not only for building, but for the purchase, installation, and sanitary improvement of existing houses and their conversion into cheap dwellings fulfilling the conditions laid down by the act.

The terms on which these credits are granted vary somewhat according to the organization concerned. To building organizations (public offices, cooperative and joint-stock societies) and to local authorities constructing dwellings on their own account, loans may be granted not exceeding 60 per cent of the cost of building or purchase price of the house and secured by a first mortgage. The proportion may, however, be raised to 75 per cent if instead the loan is guaranteed by a Department or a municipality. Loans are issued for a maximum period of 40 years. The rate of interest was at first fixed at 2 per cent in the case of a 1-family house and 2.5 per cent in that of a block of flats. When money rates became more onerous these rates were raised to 3.5 per cent for both classes of loans by the act of January 30, 1926, but from January 1, 1928, onward and until the Loucheur bill should be introduced, the rate of interest on State loans was again reduced to 3 per cent by the finance act of December 28, 1927.

To credit organizations the terms are much the same, except that the period of repayment is not definitely fixed. Instead, it is stipulated that the credits are to be redeemed when the organization itself has recovered the sums advanced by it, which is usually within 25 years.

The State does not make these advances from its own funds, but borrows from the savings banks and from the National Old Age Pension Fund. The total loans made since the war are shown in Table 11:

TABLE 11.—LOANS GRANTED BY THE STATE, 1920 TO 1927  
[In thousand francs]

Year	To building organizations					To credit organizations			
	Amount of the loans granted for building purposes to—					Amount of the loans granted for credit purposes to—			
	Local authorities	Public offices	Cheap housing societies	Cooperative cheap housing societies	Total	Building credit societies	Cooperative cheap housing societies	Mutual aid societies	Total
1920.....	40,000	50,300	1,300	200	91,800	10,300	300	-----	10,600
1921.....	-----	67,900	1,900	900	70,700	29,400	600	-----	30,000
1922.....	-----	48,400	6,700	9,800	64,900	56,200	1,400	-----	57,600
1923.....	40,000	37,500	10,500	9,900	97,900	93,800	4,400	3,600	101,800
1924.....	1,100	56,600	15,500	18,600	91,800	96,100	5,900	3,600	105,600
1925.....	3,400	61,000	11,000	29,300	104,700	96,000	3,100	6,200	105,300
1926.....	7,800	77,100	14,100	19,400	118,400	112,600	4,300	4,800	121,700
1927.....	4,800	129,200	23,700	16,800	174,500	66,300	4,900	1,300	72,500
Total....	97,100	528,000	84,700	104,900	814,700	560,700	24,900	19,500	605,100

Although the amount of the loans granted shows a marked increase during this period, their actual value, owing to the depreciation of the franc, shows a slight decline. Nevertheless the real value thus rendered available for cheap building was far greater than in the years preceding the war, and the cost to the Government is not to be reckoned by the amount of the credits.

These loans, after all, merely signify a transfer of funds through the agency of the Treasury. The real sacrifice borne by the State is represented by the difference between the interest demanded for the loans which it grants and the interest it has itself to pay for the funds borrowed by it. It has been seen that the former rate has varied between 2 and 3½ per cent, while the second has fluctuated between 6½ and 7 per cent, except during the period when the currency crisis was at its worst and rates were slightly higher. There are no figures available which show the exact financial sacrifice involved for the State. According to authoritative estimates, the difference between the rate of interest received and the rate paid on the whole of the capital advanced, for instance, in 1926, probably involved an annual loss of about 36,000,000 [francs].

#### Provisions of the Loucheur Act

Up to 1928 France was attempting to deal with the housing problem mainly on the basis of legislation adopted before the full needs of the situation were realized. The Loucheur Act, passed in July, 1928, apparently is based on the result of the experience of the preceding six or eight years, and consequently may be said to embody its considered policy. It alters the preceding housing legislation in four respects: It provides more liberal financial aid from the State; it gives direct encouragement to the ownership of homes; it extends State aid to the provision of middle class houses (so-called "moderate-rent" dwellings); and it places the funds required for the wider program at the disposal of the State. The terms on which credit facilities for building are provided are decidedly liberal.

The rate of interest at which building and credit societies are able to procure capital from the State is reduced to 2 per cent. In future such advances may amount to 80 per cent of the purchase price of the house, or even 90 per cent if repayment is guaranteed by a Department or local authority. At the same time the borrowing powers of the credit organizations are greatly increased and determined by a less complicated method.

The State does not itself undertake to raise the amount needed up to 90 per cent of the value of the building but advances part and authorizes the organization concerned to raise the remainder by special loans, binding itself to pay such part of the interest on these loans as will reduce the rate for the borrower to 2 per cent. Further, the act empowers local, municipal, and departmental authorities to supplement the aid given by the State by contributing to interest and redemption payments on State and local loans up to 1½ per cent, these contributions being entirely apart from any responsibilities assumed by the State.

To encourage home ownership, the act provides that three-fifths of the credits granted by the State are to be used in assisting private individuals, through the agency of the credit organizations, to build houses for their own use. It reduces the share which must be advanced by the future owner himself, it includes in its definition of home ownership the ownership of flats in collective dwellings, and it limits the subsidies for large families to houses which are to become the property of the occupants.



The extension of State aid to the middle-class or "moderate-rent" dwellings is carefully limited.

Twenty per cent of the cost has to be contributed by bodies initiating the work, public or private; 40 per cent may be advanced by the State according to a procedure similar to that governing loans for cheap dwellings. The loans, which are guaranteed by a first mortgage, bear interest at 4 per cent; they are repayable within a maximum period of 40 years, but the annual redemption payments can only be exacted after 20 years have elapsed. With regard to the remainder of the capital to be raised, the act provides that the Departments and local authorities may contribute annual payments for the interest and redemption of the capital up to 3 per cent of the capital sum, during a period of from 20 to 40 years. If necessary, the State may also make similar contributions up to 1.5 per cent, if the builders have had to resort to public loans in order to raise the capital required.

The housing program laid down by the Loucheur Act involves the building within five years of 200,000 cheap dwellings and 60,000 "moderate-rent" dwellings. At the time this study was made the program was just getting under way, so that only estimates of its cost were available. The cost of constructing 40,000 cheap dwellings (one year's work under the 5-year program) is estimated at 1,400,000,000 francs, of which approximately 1,150,000,000 francs will be covered by State advances or by loans the interest on which is paid in part by the authorities. For the 60,000 moderate-rent dwellings, it is assumed that if 12,000 are built each year the annual amount required will be 840,000,000 francs, of which the State is prepared to advance from 150 to 200 million, according to which plan the builders adopt.

The total cost to the Government of carrying out this program will depend, of course, upon the rate of interest it must pay in connection with its various advances and loans. While the amount can not be calculated with any exactness, it is evident that it must be large.

Adding together all the credits opened since the adoption of the Loucheur program, it will be found that the advances to building organizations sanctioned up to December 31, 1930, amounted to 1,780 million [francs] and those to credit organizations to 2,120 million. It will be noted that the loans granted during the first 18 months since the Loucheur Act came into force already exceed those accorded during the whole of the eight preceding years.

#### Subsidies as an Aid to Housing

Subsidies have been used far less freely than credit advances by the French Government, and have been confined to dwellings built specially for large families.

According to the 1922 act large families are those with more than three children under the age of 16. It is provided that the State may grant subsidies to the different approved building organizations and also to local government areas, hospitals, institutions, and savings banks, for the construction of cheap dwellings which it is proposed to let to large families. These subsidies are paid in a lump sum and may not exceed one-third of the building cost. The buildings, or at least the dwellings representing two-thirds of the rent value of a building, must be used to accommodate large families. Finally, although the rents of these houses may, as a result of these grants, be sensibly reduced, they may not be less than half the maximum rent values fixed by the act.

Under these terms subsidies were granted as follows:

	<i>Francs</i>		<i>Francs</i>
1919-----	15, 000, 000	1925-----	44, 000, 000
1920-----	29, 920, 779	1926-----	48, 000, 000
1921-----	29, 999, 812	1927-----	48, 200, 000
1922-----	35, 000, 000		
1923-----	34, 500, 000	Total-----	329, 120, 591
1924-----	44, 500, 000		

By the act of July, 1928, the definition of "large family" was liberalized, and certain classes, such as war invalids and victims of industrial accidents, were given the same privileges without regard to the number of their dependents. Subsidies under this act are only for houses which are to be owned by their occupiers.

The amount of the new subsidies is proportioned to the size of the family or the percentage of invalidity of the person concerned and not to the building cost of dwellings. They take the form of a lump-sum payment varying between 5,000 and 15,000 francs, 2,500 francs being added in respect of every child beyond the third, or for every additional 10 per cent invalidity above 60 per cent, but not for both reasons at one and the same time.

The act further prescribed the amount to be spent in these subsidies, placing it at a total of 775,000,000 francs, of which 25,000,000 were to be spent in 1928 and the remainder in yearly installments up to 1933.

#### Tax Exemption

Tax exemption for new buildings as a means of encouraging building has been used freely. Since the war all new residential building has been exempt for a period of three years from the land tax and the special taxes raised for the benefit of the local and departmental authorities. Up to 1926 a special advantage was given to cheap dwellings, which were exempt for 12 years, but in that year a new act increased the exemptions and prolonged them for 15 years in respect of any new house built before January 1, 1930, a date which was later extended to July 1, 1939. Some other exemptions from taxation are granted to approved building and credit organizations.

#### The Dwellings Built

No detailed and accurate statistics are available as to the number and types of dwellings built with public help. It is known, however, that among the cheap dwellings exempted from the property tax the 1-family dwelling is the prevailing type, and that the proportion of separate houses, as opposed to blocks of flats, is greater than before the war. Also, the new dwellings show a marked improvement in health conditions.

The conditions imposed in this respect by the committees for the promotion of cheap housing before granting subsidies, loans at reduced interest, or exemption from taxation, and the policy followed by the approved building and credit organizations have resulted in conditions of sanitation and to some extent of comfort also greatly superior to those obtaining in the old houses.

#### Housing Policy of Germany

IN GERMANY inflation assumed exaggerated proportions, but the very severity of the crisis made a stabilization of the currency imperative at an earlier date than was the case in some of the other countries.

The first steps were taken in December, 1923, and the process was completed in 1924. Naturally, these changes affected the money market, and although conditions have improved since 1924 they are as yet far from comparable with those existing before the war.

The new capital accumulated within the country is estimated at 7,600,000,000 marks in 1927 (the year in which the condition of the market was most favorable), whereas before the war it was 11,900,000,000 marks, calculated in 1927 money values. Hence in order to finance national production it has been necessary to have recourse to foreign capital to a large extent (4,400,000,000 in 1927).

This has meant a very high rate of interest on mortgage loans. Allowing for the fact that the issues were made below par, the real rate of interest was frequently from 8 to 10 per cent on first, and from 14 to 16 per cent on second mortgages. Also, building costs have been comparatively high. The following table shows building costs compared with general wholesale prices from 1924 to 1929, inclusive.

TABLE 12.—INDEX NUMBERS OF BUILDING COSTS AND OF GENERAL PRICES BETWEEN 1924 AND 1929

[1913-14=100]

Date	Building materials	Wage rates per hour		Total cost of a 4-room dwelling	General wholesale prices
		Brick-layers and carpenters	Unskilled laborers		
June, 1924.....	146	104	112	133	137
June, 1925.....	154	151	160	165	142
June, 1926.....	142	160	166	157	134
June, 1927.....	161	169	176	175	138
June, 1928.....	161	175	181	173	140
June, 1929.....	158	187	198	175	137

It will be seen that the rise in wages, especially for unskilled labor, is somewhat greater than the rise in other costs, and consequently wages are a rather more important item in total building costs than before the war; in 1926 they represented 40 per cent of the total costs (not counting the part represented by wages in the price of materials) as against 37 per cent in 1913.

Rents of old houses were severely restricted in the years immediately following the war, but from 1924 onward increases were permitted.

But the benefit of these increases was not passed on to the landlords, who received only a proportion, intended to cover the costs of maintenance and repair of buildings, and the mortgage charges which had been partially reassessed; the surplus was returned to the treasury of the States in the form of a special house-rent tax (*Hauszinssteuer*).

Up to 1927 the legal measures for regulating rents and the house tax were left to the separate States, and even after that year the States retained some freedom to fix the different constituent parts of the rent. Thus, while in April, 1929, the general level of legal rents was fixed at 120 per cent of the pre-war rents, the part taken as house-rent tax varied in the different States from 42 to 51 per cent (of pre-war rents), and the part assigned to property owners to cover mortgage charges ranged from 15 to 23 per cent.



Even the permitted increases in rents did not bring them up to the level of general prices, and it was evident that new dwellings could not be rented economically at the figures set for the old houses.

Before the war the average cost price of a working-class dwelling was estimated at 6,000 marks, interest charges on the capital invested at the rate of 5 per cent then ruling amounted to 300 marks a year, to which approximately 100 marks had to be added for costs of maintenance and repair of the building; the annual rent therefore was in the neighborhood of 400 marks. At present the same building costs 10,500 marks (building costs having risen 75 per cent); assuming that the building is financed entirely from private sources, the average interest on the capital will scarcely be less than 10 per cent, so that the interest charges will be at least 1,050 marks. If total costs of maintenance and repair are added, i. e., at least 150 marks in view of the increase in all such costs, the rental will amount to approximately 1,200 marks, i. e., three times that of the pre-war house of equal value.

#### Extent of the Need

Since definite plans to meet the housing shortage were not feasible immediately after the war, the estimates made at that time are not considered. In a memorandum published in 1927, the immediate shortage to be relieved is placed for the whole of Germany at 600,000 dwellings. Since the census of 1927 showed that "the number of households and families without separate dwellings is found to be between 950,000 and 1,000,000," this estimate was considered far too small, and the Government elected in 1928 drew up plans for a more extensive program. It was not sufficient, this declared, merely to meet the shortage resulting from the war and the depreciation of the currency.

Old buildings, the demolition of which has been postponed on account of the general housing shortage, have to be replaced as well as temporary dwellings constructed during the crisis and which are rapidly becoming uninhabitable; in order to effect such replacements 300,000 dwellings require to be built immediately, and in addition approximately 30,000 additional dwellings per year. Further, the surplus population of 750,000 overcrowded dwellings has to be gradually accommodated elsewhere. Again, local shortages, resulting from movements of the population within the country caused by the centralization and rationalization of industry and the policy of agricultural colonization, have to be met; for this purpose another 160,000 dwellings are required (though it is true that the resulting vacancies in other population centers afford a partial compensation). To these should be added 15,000 dwellings a year needed in rural districts.

#### Public Authorities and the Financing of Building

After the war, when it was believed that the rise in costs was only temporary, the public authorities undertook to cover during the transitional period the difference between the actual cost price of houses and the cost expected to rule after some years. This was done by granting subsidies which were at first nonrepayable, and afterward repayable in part. The funds thus used were in the first instance provided out of the budget, but after 1921 partly out of the proceeds of a tax paid by the tenants of old houses. After stabilization the system of direct subsidies was given up as a general means of encouraging building, being retained only in certain special cases.

#### Credit Facilities

After the period of inflation it became apparent that the builder could not raise on first mortgages and from his own funds more than about half the cost of a dwelling, and that approximately 50 per cent

must be secured from public sources. The commonest form of help is a loan on a second mortgage. The States differ in their method of giving this, but there is a tendency to take as a model some rules adopted by the Central Government. According to these, loans granted on second mortgages may not exceed two-thirds of the value of the building to be constructed. Usually, they do not reach that figure, but in a few exceptional cases, such as where war victims or very large families are concerned, the amount may be exceeded.

In principle loans are granted to all builders, whether public or private, who undertake to erect dwellings conforming to the conditions specified in the matter of minimum sanitary requirements and maximum size and comfort. The builder is further required to prove: (1) That he is in a position to procure the necessary capital to supplement the public loan either out of his own resources or by means of private mortgage loans; and (2) that he can count upon a rent adequate to cover the cost of maintenance and repair of the building and the interest and redemption charges on the capital borrowed.

The interest charged may vary, but is usually moderate. In Prussia, for instance, interest is fixed at 3 per cent, and redemption charges at 1 per cent during the first 10 years and 2 per cent afterward. However, the interest may be reduced to 1 per cent if, on account of other charges cumbering the building, the rents charged exceed those of old houses. When it is remembered that interest charges on second mortgages are usually 14 to 16 per cent, it is evident that such terms mean a very appreciable saving to the builder.

#### Subsidies and Temporary Loans

Direct subsidies, although still permitted by law, have almost entirely disappeared. Temporary loans are more frequently used. In 1926 an act to encourage the building of small dwellings authorized the Reich to grant loans to the States, which the latter may advance to builders as temporary loans repayable as soon as long-term credits are obtainable on the completion of the building. The maximum to be advanced for this purpose is 250,000,000 marks.

#### Measures to Encourage Building for Special Classes

Even before the war measures were taken to aid in providing housing for Government officials and for employees in the principal public services, such as railways and the post office, and these have been extended in the postwar period. For the most part this work has been along the lines already discussed—provision of loans by the Government and the guaranteeing of private loans. Special funds have been provided for this purpose, and loans are made on more liberal terms than are offered the general public. One provision enables retiring Government servants to convert part of their annual pensions into a single payment in order to assist them in purchasing or building dwellings. Most of these measures apply also to members of the fighting services and their families.

For miners and for rural workers, also, special measures have been taken to promote housing, but in both cases the desire to reduce unemployment by the organization of productive work has been a factor.

## Other Measures

Exemption of new dwellings from taxation has been used somewhat, but for the most part it is confined to dwellings built by public-utility organizations. A policy of furnishing land at moderate prices has also been followed, which has been a helpful factor in the situation.

As a result of the land policy adopted by the municipal authorities since the war, the necessary building land has been obtained without difficulty and generally on fairly favorable terms. In fact the prices asked by the municipalities correspond to the lowest prices obtainable in the ordinary market, and are sometimes even slightly lower.

## Results of Policy

Before the war the average production of new dwellings in Germany was 250,000 per year. Immediately following the war there was a nearly complete cessation of building, followed by a partial recovery under the first measures taken by the Government to aid the industry. The wholesale depreciation of the currency caused a marked falling off again, followed by a rapid rise resulting from the large-scale measures of assistance taken by the Government and from the gradual improvement in the general situation. These movements are shown in the following table:

TABLE 13.—HOUSING ACTIVITIES IN GERMANY BETWEEN 1919 AND 1929

Year	Dwellings made available by—		Dwellings demolished	Net increase in number of dwellings
	Building	Adapting old houses		
1919	35,596	25,265	4,147	56,714
1920	75,928	32,379	5,215	103,092
1921	108,596	32,902	7,275	134,223
1922	124,273	30,697	8,355	146,615
1923	100,401	25,539	7,607	118,333
1924	94,807	20,569	8,874	106,502
1925	164,437	27,375	12,882	178,930
1926	199,084	21,445	14,736	205,793
1927	284,444	22,390	18,199	288,335
1928	306,825	23,617	20,680	309,762
1929	315,703	23,099	21,120	317,682

It will be noticed that the annual number of new dwellings did not reach the pre-war figure until 1927, so that in spite of the active building shown in the last three years, comparatively little has been done toward making up the deficit which has accrued up to that time.

Full statistics as to the cost to the Government of the building program can not be furnished. During the three years 1924–1926 the amounts advanced yearly from public sources ranged from 520,000,000 to 1,480,000,000 marks, but the changing value of the mark makes it impossible to calculate what these amounts really meant. For the latest two and a half years covered by Table 13 the amounts of capital mobilized for housing purposes were as follows:



TABLE 14.—CAPITAL FOR CONSTRUCTION OF DWELLINGS IN GERMANY, 1927 TO 1929

[In millions of marks]

Source of capital	1927	1928	First half of 1929
<b>Public resources:</b>			
Proceeds of the house-rent tax.....	850	850	400
Official loans raised by the States and local authorities.....	730	300	125
Government subsidies for employees' houses, assistance to war victims, and aid to agricultural settlement.....	40	100	35
<b>Total.....</b>	<b>1,620</b>	<b>1,250</b>	<b>560</b>
<b>Private resources:</b>			
Savings banks.....	550	700	400
Insurance (public and private).....	160	240	100
Public credit institutions.....	270	280	50
Private mortgage banks.....	300	380	150
<b>Total.....</b>	<b>1,280</b>	<b>1,600</b>	<b>700</b>
Capital provided by building enterprises.....	300	450	
<b>Grand total.....</b>	<b>3,200</b>	<b>3,300</b>	

It will be seen that not far from half of the capital invested in housing activities during the last few years was provided by the State, and that the house-rent tax played an important part in the matter. In the larger towns, especially, Government aid has been used extensively.

Further it is estimated that 87 per cent of all the dwellings built in 1928 and 1929 in the larger towns (over 50,000 inhabitants) have been constructed with some form of State aid.

Since provision is always made for payment of interest and sinking-fund charges upon these loans, the State is already deriving revenue from its investments in this line, and this promises to become an important matter in the future. "In 1929, for example, as some 3,000 million marks had been advanced since 1924, these payments should be from 50 to 60 million marks." At present these sums are reapplied to the encouragement of house building.

## WAGES AND HOURS OF LABOR

### Hours and Earnings in Blast Furnaces, Bessemer Converters, and Open-Hearth Furnaces, 1931

THE 1931 wage figures in this article are the results of a study by the Bureau of Labor Statistics, Department of Labor, of hours and earnings of 9,825 wage earners in 34 representative blast furnaces, 1,990 wage earners in 11 Bessemer converters, and of 12,795 wage earners in 35 open-hearth furnaces in the iron and steel industry in the United States. The basic wage data used in compiling this report were, except for a few plants, for the half-monthly pay period ending March 31. Data were also collected at the same time and for the same period for seven other departments of the industry. Wage figures for the other departments similar to those shown here for blast furnaces, Bessemer converters, and open-hearth furnaces will appear in a later issue of the Monthly Labor Review. A complete report covering the 10 departments will be published in bulletin form.

#### Trend of Hours and Earnings, 1913 to 1931, by Department

WAGE EARNERS in blast furnaces, as shown in Table 1, earned an average of 55.1 cents per hour in 1931, as compared with 52.8 cents per hour in 1929, an increase of 4.4 per cent. Their average full-time hours per week were 57.2 in 1931 and 60.7 in 1929, a decrease of 3.5 hours per week, or 5.8 per cent. The decrease was due in part to the loss in 1931 of three furnaces that were included in 1929. They were not in operation and substitutes could not be obtained for any of them because there were no plants in operation in this locality at the time of the study. Their average full-time earnings per week were \$31.52 in 1931 and \$32.05 in 1929, a decrease of 1.7 per cent. Between 1929 and 1931 average full-time earnings per week decreased notwithstanding the fact that during the same period average earnings per hour increased. This was due to the decrease in average full-time hours per week.

Wage earners in Bessemer converters earned an average of 66.4 cents per hour in 1931 and 64.3 cents in 1929, an increase of 3.3 per cent. Their average full-time hours per week were 53.3 in 1931 and 53.7 in 1929, and their average full-time earnings per week were \$35.39 in 1931 and \$34.53 in 1929.

Wage earners in open-hearth furnaces earned an average of 70.3 cents per hour in 1931 and 71.4 cents in 1929, a decrease of 1.5 per cent. Their average full-time hours per week were 53.8 in 1931 and 57.7 in 1929, and their average full-time earnings per week were \$37.82 in 1931 and \$41.20 in 1929.

Averages are also shown in the table for each of the specified years from 1913 to 1926 in which the bureau has made studies of the iron and steel industry. The table also presents index numbers for the 1913 to 1931 averages, with the 1913 average as the base or 100.

Due to the time and expense involved it was necessary to limit the study in 1931 and in each of the specified years from 1913 to 1929 to a representative number of plants and wage earners in the industry. A sufficient number of each have been included in each year fairly to represent conditions in each department of the industry for the country as a whole, and also for each locality.

Data were collected in 1931 from the same blast furnaces, Bessemer converters, and open-hearth furnaces as in 1929, if still in operation and representative. A few were not operating or had ceased to be representative. Substitutions were made when available to continue the representative character of the figures. It was not possible to obtain a substitute in each locality for each blast furnace that had been included in the 1929 report, because furnaces were not in operation in all of the localities during the period of the 1931 study of the industry. Consequently the 1931 wage figures are for 34 blast furnaces, as compared with 37 for 1929. The loss of the three plants, as already stated, is responsible in part for the decrease in the average full-time hours per week between these two years.

TABLE 1.—AVERAGE HOURS AND EARNINGS, WITH INDEX NUMBERS OF SUCH AVERAGES, FOR EACH SPECIFIED YEAR 1913 TO 1931, FOR ALL EMPLOYEES IN ALL OCCUPATIONS IN BLAST FURNACES, BESSEMER CONVERTERS, AND OPEN-HEARTH FURNACES

Department and year	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers (1913=100)		
				Full-time hours per week	Earnings per hour	Full-time earnings per week
Blast furnaces:						
1913.....	76.9	\$0.205	\$15.76	100	100	100
1914.....	74.8	.206	15.41	97	100	98
1915.....	74.9	.207	15.50	97	101	98
1920.....	72.1	.571	41.17	94	279	261
1922.....	72.3	.398	28.78	94	194	183
1924.....	59.7	.520	31.04	78	254	197
1926.....	59.8	.517	30.92	78	252	196
1929.....	60.7	.528	32.05	79	258	203
1931.....	57.2	.551	31.52	74	269	200
Bessemer converters:						
1913.....	70.0	.284	19.88	100	100	100
1914.....	68.4	.255	17.44	98	90	88
1915.....	68.7	.264	18.14	98	93	91
1920.....	70.3	.677	47.50	100	238	239
1922.....	68.7	.470	32.29	98	165	162
1924.....	52.3	.624	32.64	75	220	164
1926.....	52.6	.641	33.72	75	226	170
1929.....	53.7	.643	34.53	77	226	174
1931.....	53.3	.664	35.39	76	234	178
Open-hearth furnaces:						
1913.....	76.7	.237	18.18	100	100	100
1914.....	74.5	.237	17.66	97	100	97
1915.....	74.4	.246	18.30	97	104	101
1920.....	68.7	.671	46.10	90	283	254
1922.....	70.8	.480	33.98	92	203	187
1924.....	58.0	.635	36.83	76	268	203
1923.....	57.1	.677	38.66	74	286	213
1929.....	57.7	.714	41.20	75	301	227
1931.....	53.8	.703	37.82	70	297	208

### Hours and Earnings, 1929 and 1931, by Department and Occupation

TABLE 2 shows average hours and earnings and the per cent of employees in each classified group of full-time hours per week in 1929 and 1931 for each of the specified and principal occupations in blast



furnaces, Bessemer converters, and open-hearth furnaces. Like figures for each of the occupations in the table for the specified years from 1907 to 1929 in blast furnaces and in Bessemer converters, and from 1910 to 1929 in open-hearth furnaces, appear in Bulletin No. 513.

Average full-time hours per week were less in each of the 16 specified blast-furnace occupations in 1931 than in 1929. The hours in 1929 by occupation ranged from an average of 54.3 for bottom fillers to 73.2 for iron handlers and loaders, and in 1931 from 48.0 for bottom fillers and top fillers to 59.5 for iron handlers and loaders, and laborers. The decrease in hours was greater for iron handlers and loaders than for employees in any of the other occupations in blast furnaces and was due principally to a reduction between 1929 and 1931 in full-time hours in two furnaces.

Average earnings per hour were more in 8 and less in 8 occupations in blast furnaces in 1931 than in 1929. The earnings in 1929 by occupation ranged from 37.3 cents for laborers to 91.8 cents for blowers, and in 1931 from 36.0 cents for iron handlers and loaders to 92.9 cents for blowers. Stockers' earnings increased from an average of 45.1 cents per hour in 1929 to 48.5 cents in 1931—more than in any other occupation. Bottom fillers earned an average of 62.9 cents in 1929 and 57.5 cents in 1931. Their loss in earnings was more per hour than for employees in any other occupation. The occupations of bottom fillers and top fillers are nearly obsolete, due to change in the equipment of blast furnaces.

Average full-time earnings per week were less in each of the 16 occupations in blast furnaces in 1931 than in 1929. The decrease in the eight occupations in which there was an increase in average earnings per hour was due to a decrease in average full-time hours per week in each of these occupations. Average full-time earnings per week ranged in 1929 from \$23.80 for laborers to \$53.89 for blowers and in 1931 from \$21.42 for iron handlers and loaders to \$51.84 for blowers.

Average full-time hours per week were less in 13 and more in 3 of the 17 specified occupations in Bessemer converters in 1931 than in 1929. There was no change in the average for vesselmen's helpers. Their average full-time hours per week were 51.0 in 1929 and 1931. Average earnings per hour were more in 7 and less in 9 of the 17 specified occupations in Bessemer converters in 1931 than in 1929. The average for laborers was 45.2 cents per hour in 1929 and 1931. Bottom makers increased their average from 71.3 cents in 1929 to 82.5 cents per hour in 1931, which increase was more than in any other occupation. The decrease for vesselmen from \$1.212 per hour in 1929 to \$1.126 in 1931 was more than for any other occupation in Bessemer converters.

Average full-time earnings per week in Bessemer converters in 1931 were more in 7 and less in 10 occupations than in 1929. Averages for bottom makers increased from \$38.15 per week in 1929 to \$43.56 in 1931. This increase was more than that of any other occupation. Averages for vesselmen decreased from \$63.63 in 1929 to \$57.54 in 1931. This loss in average earnings per week was more than for any other occupation in Bessemer converters and was caused by a decrease in average full-time hours per week and average earnings per hour between 1929 and 1931.

Average full-time hours per week were less in 1931 than in 1929 in each of the 15 specified occupations in open-hearth furnaces for which averages are shown in the table for both years. Averages for charging-floor cranemen are shown for 1931 only. Average earnings per hour were less in 12 and more in 3 occupations in 1931 than in 1929. Average full-time earnings per week were less in 14 occupations and more in 1 occupation in open-hearth furnaces in 1931 than in 1929.

TABLE 2.—AVERAGE HOURS AND EARNINGS, AND PER CENT OF EMPLOYEES IN EACH CLASSIFIED GROUP OF FULL-TIME HOURS PER WEEK IN EACH SPECIFIED OCCUPATION IN BLAST FURNACES, BESSEMER CONVERTERS, AND OPEN-HEARTH FURNACES, 1929 AND 1931

*Blast furnaces*

Occupation	Year	Number of plants	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Per cent of employees whose average full-time hours per week were—						
							48 and under	Over 48, under 60	60	Over 60, under 72	72	Over 72, under 84	84
Stockers.....	1929	37	877	62.6	\$0.451	\$28.23	(1)	52	5	26	4	1	112
	1931	34	475	57.2	.485	27.74	13	51	25	4	4	(1)	12
Bottom fillers.....	1929	2	35	54.3	.629	34.15		100					
	1931	1	18	48.0	.575	27.60	100						
Top fillers.....	1929	2	17	54.4	.675	36.72		100					
	1931	1	7	48.0	.624	29.95	100						
Larry men.....	1929	36	412	58.5	.552	32.29		86			3		10
	1931	33	326	55.3	.563	31.13	10	84			4		2
Larry men's helpers.....	1929	24	278	57.5	.495	28.46		92			4		4
	1931	25	212	54.9	.482	26.46	14	80			4		1
Skip operators.....	1929	31	243	58.5	.547	32.00		86			3		11
	1931	25	157	56.2	.532	29.90	13	76			6		4
Blowers.....	1929	37	226	58.7	.918	53.89		83		1	8		8
	1931	33	180	55.8	.929	51.84	12	78	1	2	3	2	2
Blowing engineers.....	1929	37	180	59.7	.683	40.78		82			4		13
	1931	34	164	55.7	.706	39.32	13	78			3	1	4
Blowing engineers' assistants.....	1929	25	189	56.2	.613	34.45		94			3		3
	1931	20	140	54.2	.626	33.93	9	89			3		
Stove tenders.....	1929	36	347	57.7	.557	32.14		90			3		7
	1931	31	235	55.0	.560	30.80	15	77			4		3
Keepers.....	1929	37	350	57.7	.579	33.41		89			3		8
	1931	34	274	55.2	.573	31.63	12	82			4		3
Keepers' helpers.....	1929	37	1,142	59.5	.486	28.92		83			4	(1)	13
	1931	34	812	56.2	.492	27.65	10	79			6	1	14
Iron handlers and loaders.....	1929	5	55	73.2	.374	27.38		13	18		38		31
	1931	5	46	59.5	.360	21.42		50	37	11	2		
Pig-machine men.....	1929	29	377	61.7	.494	30.48		66	12	2	3		18
	1931	29	387	57.1	.486	27.75	9	76	1		9		5
Cinder men.....	1929	20	108	62.5	.486	30.38		47	19	25	1		8
	1931	18	95	57.6	.483	27.82	13	52	23	7	4		1
Laborers.....	1929	36	1,184	63.8	.373	23.80	(1)	22	34	39	(1)		5
	1931	34	992	59.5	.384	22.85	1	29	60	9			1

*Bessemer converters*

Stockers.....	1929	10	156	50.7	\$0.628	\$31.84	68	12	17	3			
	1931	10	117	50.5	.622	31.41	63	13	24				
Blowers.....	1929	11	27	50.7	1.301	65.96	74	11	7	7			
	1931	11	26	50.5	1.291	65.20	62	31	8				
Regulators, first.....	1929	10	25	53.5	.910	48.69	20	56	16	8			
	1931	10	23	51.5	.966	49.75	48	39	13				
Regulators, second.....	1929	8	27	49.7	.946	47.02	52	48					
	1931	7	19	49.3	.902	44.47	63	37					
Vessel men.....	1929	11	28	52.5	1.212	63.63	21	61		18			
	1931	10	30	51.1	1.126	57.54	37	57	7				
Vessel men's helpers.....	1929	11	57	51.0	.900	45.90	39	54	4	4			
	1931	11	49	51.0	.857	43.71	39	57	4				

<sup>1</sup> Less than 1 per cent.

<sup>2</sup> Including less than 1 per cent at 91.

TABLE 2.—AVERAGE HOURS AND EARNINGS, AND PER CENT OF EMPLOYEES IN EACH CLASSIFIED GROUP OF FULL-TIME HOURS PER WEEK IN EACH SPECIFIED OCCUPATION IN BLAST FURNACES, BESSEMER CONVERTERS, AND OPEN-HEARTH FURNACES, 1929 AND 1931—Continued

*Bessemer converters—Continued*

Occupation	Year	Number of plants	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Per cent of employees whose average full-time hours per week were—					
							48 and under	Over 48, under 60	60	Over 60, under 72	72	Over 72, under 84
Cinder pitmen.....	1929	11	108	52.6	\$0.557	\$29.30	61	14	14	11		
	1931	11	97	51.5	.566	29.15	48	34	18			
Bottom makers.....	1929	11	23	53.5	.713	38.15	43	17	35	4		
	1931	11	21	52.8	.825	43.56	48	14	38			
Bottom makers' helpers.....	1929	11	37	55.0	.590	32.45	38	8	49	5		
	1931	11	31	54.5	.636	34.66	35	10	32	23		
Ladle liners.....	1929	11	34	51.6	.818	42.21	59	21	15	6		
	1931	10	23	51.5	.901	46.40	61	13	26			
Ladle liners' helpers.....	1929	11	37	51.8	.633	32.79	65	14	14	8		
	1931	10	31	50.7	.664	33.66	71	10	19			
Stopper makers.....	1929	11	12	59.3	.583	34.57	17	8	58	17		
	1931	11	14	56.4	.569	32.09	21	14	64			
Stopper setters.....	1929	11	33	50.4	1.036	52.21	76	9	9	6		
	1931	11	31	50.5	.998	50.40	58	35	6			
Steel pourers.....	1929	9	26	49.0	1.162	56.94	88		12			
	1931	10	27	50.1	1.135	56.86	74	19	7			
Mold cappers.....	1929	8	33	51.7	.708	36.60	52	27	9	12		
	1931	7	23	49.8	.752	37.45	83	9	9			
Ingot strippers.....	1929	7	21	53.0	.844	44.73	43	43	14			
	1931	8	26	50.6	.809	40.94	73	15	12			
Laborers.....	1929	11	196	57.6	.452	26.04	29	11	35	25		
	1931	10	211	57.9	.452	26.17	24	14	55	7		

*Open-hearth furnaces*

Stockers.....	1929	32	659	57.9	\$0.560	\$32.42	8	74	5	3	1	2	7
	1931	34	544	54.5	.527	28.72	31	61	1	5	(1)		2
Stock crane men.....	1929	30	254	57.0	.706	40.24	10	81		2	2	2	4
	1931	33	225	54.2	.663	35.93	28	64	3	2	1	1	2
Charging-machine operators.....	1929	33	256	56.2	.958	53.84	9	85			1	3	2
	1931	35	262	53.2	.879	46.76	29	70				1	1
Door operators.....	1929	15	219	55.2	.433	23.90	5	93					2
	1931	14	213	53.3	.436	23.24	38	61					2
Charging-floor crane men.....	1931	22	138	53.0	.760	40.28	17	83					
Melters' helpers, first.....	1929	33	980	55.9	1.247	69.71	6	92				2	1
	1931	35	1,004	53.1	1.239	65.79	32	67			(1)		1
Melters' helpers, second.....	1929	33	984	55.8	.886	49.44	7	91			1	2	
	1931	35	1,006	53.1	.877	46.57	33	66		(1)			1
Melters' helpers, third.....	1929	33	1,026	55.6	.687	38.20	5	92			1	1	1
	1931	33	955	52.9	.668	35.34	33	65			1		1
Stopper setters.....	1929	27	121	56.2	.870	48.89	2	93			2		2
	1931	29	158	53.0	.798	42.29	39	58			1		2
Steel pourers.....	1929	33	159	56.3	.927	52.19	6	88			3	2	1
	1931	35	177	53.5	.851	45.53	31	67			1		1
Mold cappers.....	1929	6	49	55.3	.673	37.22	8	92					
	1931	8	40	53.5	.632	33.81	48	48					5
Ladle crane men.....	1929	30	257	55.8	.941	52.51	5	92			1	2	1
	1931	33	290	53.2	.846	45.01	30	68			1		1
Ingot strippers.....	1929	28	116	57.3	.831	47.62	3	89			2	5	2
	1931	26	118	54.5	.747	40.71	23	72			3		2
Engineers, locomotive.....	1929	30	389	56.1	.762	42.75	6	86	3	2	1	1	2
	1931	31	372	53.3	.843	44.93	35	61	1	1	2		2
Switchmen.....	1929	30	435	54.9	.645	35.41	6	87	3	(1)		1	3
	1931	30	388	53.4	.606	32.36	31	66		(1)	1		1
Laborers.....	1929	33	1,548	60.5	.433	26.20	9	31	15	44		(1)	1
	1931	33	1,540	57.5	.436	25.07	27	17	41	15			(3)

<sup>1</sup> Less than 1 per cent.

<sup>3</sup> Less than 1 per cent at 98.



## Union Scales of Wages and Hours of Labor in 1931

### Part 2. Average Wage Rates, by Trades

UNION wage rates per hour in 1931, on the average, increased slightly over 1930 and were higher than in any preceding year, according to the annual survey recently completed by the Bureau of Labor Statistics covering 705,332 organized workers.

The present article covers the principal time-work trades—bakery trades, building trades, chauffeurs, teamsters and drivers, stone trades, laundry workers, linemen, longshoremen, and printing trades—in 67 important industrial cities.<sup>a</sup> There are many trades whose members are employed wholly or mainly on piecework, but these frequently have a multitude of rates which are practically impossible to incorporate in a general tabulation and difficult to understand by anyone not familiar with the particular industries, and are therefore not included in the present tabulation. The rates for street-railway motormen and conductors and bus drivers have likewise been omitted from tabulation this year because their hours of labor are not uniform or susceptible of presentation in the same manner as the trades above enumerated. The data for street-railway employees, pieceworkers, and employees in other occupations that do not readily lend themselves to the general tabulation will be published later.

The average hourly rate in 1931 for all trades covered was \$1.254 as compared with \$1.250 in 1930, or an increase of four-tenths of 1 cent an hour. Of the 69 individual time-work trades covered by the survey, 45 showed increases in average wage rates per hour in 1931 as compared with 1930, 1 showed no change in rate, and the remaining 23 showed decreases. The average rates in the principal trade groups are shown in Table 1.

TABLE 1.—AVERAGE HOURLY WAGE RATES IN SPECIFIED TRADE GROUPS IN 1931 AS COMPARED WITH 1930

Trade group	Average hourly wage rate		Increase 1931 over 1930
	1930	1931	
Bakers.....	\$0.965	\$0.934	<sup>1</sup> \$0.031
Building trades.....	1.410	1.423	.013
Chauffeurs and teamsters and drivers.....	.732	.740	.008
Granite and stone cutters.....	1.412	1.437	.025
Laundry workers.....	.479	.481	.002
Linemen.....	1.128	1.135	.007
Longshoremen.....	.875	.868	<sup>1</sup> .007
Printing and publishing:			
Book and job.....	1.074	1.068	<sup>1</sup> .006
Newspaper.....	1.241	1.247	.006
Average, all trades.....	1.250	1.254	.004

<sup>1</sup> Decrease.

<sup>a</sup> Preliminary data on 20 trades in 40 cities were given in the September, 1931, Labor Review (pp. 156-180).

The reduction in regular hours of labor from year to year has been almost as continuous as the increase in wage rates per hour, and the year 1931 was no exception, showing as it did a reduction of six-tenths of 1 per cent from 1930, the average full-time hours in 1930 being 43.9 and in 1931, 43.6. In earlier years the decrease in hours was brought about mainly by reductions in those trades working more than eight hours per day or six days per week. Later the reduction was due to the increasing prevalence of the short day on Saturday (making a 5½-day week); at present, reductions are due to the increasing number of trades working a 5-day week. The building trades, with an average of 41.3 hours, have the shortest working week as a group and indications are that the 5-day week for all building trades is steadily and with increasing pace displacing the 5½-day week for this group. More than two-thirds of the reported membership of the building trades have a 5-day working week. Chauffeurs and teamsters and drivers, with an average of 53.7 hours, had the longest working week. Table 2 shows for 1931 the average working hours and the per cent of members in each trade group having specified working hours. The hours stated represent the regular full time per week. No data are available as to broken time or overtime that may have been worked.

TABLE 2.—PER CENT OF TRADE-UNION MEMBERS IN SPECIFIED TRADE GROUPS WORKING EACH CLASSIFIED NUMBER OF HOURS PER WEEK, MAY 15, 1931

Trade group	Average hours per week	Per cent of members whose hours per week were—									
		Under 40	40	Over 40 and under 44	44	Over 44 and under 48	48	Over 48 and under 54	54	Over 54 and under 60	Over 60
Bakers.....	47.5			5.5		11.8	79.9	0.1	2.6		0.1
Building trades.....	41.3		68.8		29.5	.6	1.0	.1	.1		
Chauffeurs and teamsters and drivers.....	53.7			.4	1.2	3.9	24.9	11.3	16.5	13.6	25.0
Granite and stone trades.....	41.6		60.2		39.7			.1			
Laundry workers.....	48.0						100.0				
Linemen.....	44.4		18.1		59.4		16.8	4.9	.8		
Longshoremen.....	44.8				82.8		16.0			1.1	
Printing and publishing:											
Book and job.....	44.2	0.1	.2	.5	92.0	.1	7.1				
Newspaper.....	45.0	4.5	1.6	11.2	10.5	44.6	27.6				
Average.....	43.6	.2	45.5	.7	33.5	3.0	8.8	1.4	2.0	1.7	2.9

### Trend of Union Wages and Hours

TABLE 3 shows that the average hourly union wage rate on May 15, 1931, was higher than in any preceding year, being three-tenths of 1 per cent higher than on the same date in 1930, 139.1 per cent higher than in 1917, 173.0 per cent higher than in 1913, 189.0 per cent higher than in 1910, and 204.3 per cent higher than in 1907. In other words, the average union wage rate per hour was more than three times as much in 1930 as in 1907 and nearly two and three-quarters times as much as in 1913.

Figured on the weekly basis, the rates in 1931 were four-tenths of 1 per cent lower than in 1930, 116.1 per cent higher than in 1917, 142.9 per cent higher than in 1913, 155.1 per cent higher than in 1910, and 165.4 per cent higher than in 1907. Because of reductions in

hours of labor, weekly rates have not increased to the same extent as hourly rates. In 1931 the regular hours of labor were six-tenths of 1 per cent lower than in 1930, 9.3 per cent lower than in 1917, 10.8 per cent lower than in 1913, 11.8 per cent lower than in 1910, and 13.1 per cent lower than in 1907.

The index numbers shown in Table 3 are computed on the basis of 1913 as 100. These indexes include all the time-work trades and all cities covered in preceding years, but the number of trades and cities included in the data has varied from year to year.

TABLE 3.—INDEX NUMBERS OF UNION WAGE RATES AND HOURS OF LABOR IN THE UNITED STATES AS OF MAY EACH YEAR, 1907 TO 1931

[1913=100]

Year	Index numbers of—			Year	Index numbers—		
	Rate of wages per hour	Hours per full-time week	Rate of wages per full-time week		Rate of wages per hour	Hours per full-time week	Rate of wages per full-time week
1907.....	89.7	102.6	91.5	1920.....	199.0	93.8	188.5
1908.....	91.0	102.1	92.5	1921.....	205.3	93.9	193.3
1909.....	91.9	101.9	93.3	1922.....	193.1	94.4	183.0
1910.....	94.4	101.1	95.2	1923.....	210.6	94.3	198.6
1911.....	96.0	100.7	96.5	1924.....	228.1	93.9	214.3
1912.....	97.6	100.3	97.7	1925.....	237.9	93.0	222.3
1913.....	100.0	100.0	100.0	1926.....	250.3	92.8	233.4
1914.....	101.9	99.6	101.6	1927.....	259.5	92.4	240.8
1915.....	102.8	99.4	102.3	1928.....	260.6	91.9	240.6
1916.....	107.2	98.8	106.2	1929.....	262.1	91.5	240.7
1917.....	114.2	98.4	112.4	1930.....	272.1	89.8	243.8
1918.....	132.7	97.0	129.6	1931.....	273.0	89.2	242.9
1919.....	154.5	94.7	147.8				

Because of the wide interest in building operations and the resultant inquiries to the bureau for wage changes in building trades as a group, the data for these trades are given below.

*Index numbers of union wage rates per hour in the building trades*

	Index number		Index number
1913.....	100.0	1923.....	207.3
1914.....	101.9	1924.....	224.0
1915.....	102.8	1925.....	232.7
1916.....	106.2	1926.....	248.0
1917.....	112.8	1927.....	256.7
1918.....	125.2	1928.....	258.1
1919.....	145.4	1929.....	261.6
1920.....	196.8	1930.....	272.8
1921.....	200.3	1931.....	276.3
1922.....	187.5		

Table 4 shows the average union wage rates per hour, average full-time working hours per week, the number of returns on which 1931 averages are based, and index numbers of hourly rates for the years 1926 to 1931. The index numbers for the years back to 1907 may be found in Bulletin No. 482 of this bureau, but are omitted here for want of space. For some trades data were not collected as early as 1913, hence there can be no index numbers for them on a 1913 base.



In computing an average rate, each rate quoted is multiplied by the number of union members having such rate. The products are added and the sum divided by the grand total membership; in other words, the rates are weighted by the number of union members. This membership is furnished the bureau for this sole purpose and is held strictly confidential.

The rates for a city may enter into an average one year because the trade has an effective wage scale, but may drop out the next year because the trade can not enforce its scale or because the union has disbanded. Also, the membership fluctuations in high or low rate cities have an important bearing on this weighted average rate. The grand average rate may, possibly, vary to a greater extent than the rate in any city reporting for both years or it may show a decrease while the individual rates composing it may show no change and some increases. The index numbers are computed from these averages. In Table 4 hourly rates only are considered. Equivalent weekly rates do not exactly parallel hourly rates because of changes in working hours.

TABLE 4.—NUMBER OF QUOTATIONS, AVERAGE WAGE RATES PER HOUR, 1930 AND 1931, AVERAGE FULL-TIME HOURS PER WEEK, 1931, AND INDEX NUMBERS OF HOURLY RATES FOR SELECTED YEARS BASED ON 1913

Trade	Number of quotations, May, 1931	Average rate of wages per hour		Index numbers of rates of wages per hour (1913=100)						Average hours per week, May, 1931
		May, 1930	May, 1931	May, 1926	May, 1927	May, 1928	May, 1929	May, 1930	May, 1931	
<i><b>Bakery trades</b></i>										
Bakers.....	264	\$0.965	\$0.934	277.2	286.8	285.9	293.4	289.2	279.9	47.5
<i><b>Building trades</b></i>										
Asbestos workers.....	39	1.445	1.471	(1)	(1)	(1)	(1)	(1)	(1)	40.8
Bricklayers.....	65	1.695	1.700	226.4	231.9	233.9	239.7	245.1	245.9	41.0
Sewer, tunnel and caisson.....	11	1.913	2.039	199.2	218.6	214.3	199.5	199.1	212.2	42.1
Building labor group:										
Building laborers.....	49	.919	.893	254.9	255.8	257.0	258.2	275.3	267.5	43.1
Hod carriers.....	41	1.106	1.088	273.8	280.4	280.7	293.0	302.3	297.3	41.4
Plasterers' laborers.....	41	1.161	1.128	257.2	259.7	264.1	265.0	282.3	274.3	41.0
Plumbers' laborers.....	13	1.013	1.051	(1)	(1)	(1)	(1)	(1)	(1)	40.1
Carpenters.....	66	1.390	1.400	238.4	246.7	247.5	252.0	261.6	263.5	41.7
Millwrights.....	26	1.303	1.349	(1)	(1)	(1)	(1)	(1)	(1)	43.2
Parquetry-floor layers.....	22	1.475	1.494	253.1	250.2	236.1	241.9	259.5	262.8	40.3
Ship.....	9	1.404	1.372	(1)	(1)	(1)	(1)	(1)	(1)	40.9
Wharf and bridge.....	19	1.360	1.383	(1)	(1)	(1)	(1)	(1)	(1)	41.4
Cement finishers.....	56	1.493	1.475	226.9	236.8	234.6	234.6	256.4	253.3	41.9
Composition roofers.....	37	1.387	1.432	(1)	(1)	(1)	(1)	(1)	(1)	41.3
Helpers.....	7	.796	.782	(1)	(1)	(1)	(1)	(1)	(1)	41.4
Elevator constructors.....	51	1.519	1.524	(1)	(1)	(1)	(1)	(1)	(1)	41.7
Helpers.....	49	1.093	1.098	(1)	(1)	(1)	(1)	(1)	(1)	41.5
Engineers, portable and hoisting.....	124	1.593	1.608	217.2	224.2	233.5	232.5	259.0	261.4	42.6
Glaziers.....	39	1.408	1.428	(1)	(1)	(1)	(1)	(1)	(1)	41.3
Inside wiremen.....	63	1.484	1.506	244.6	255.0	257.2	268.2	271.1	274.0	41.3
Fixture hangers.....	15	1.338	1.335	234.7	232.7	235.8	241.8	258.2	297.0	41.0
Lathers.....	88	1.546	1.565	240.6	250.3	251.0	249.0	259.4	262.6	40.3
Marble setters.....	54	1.565	1.572	212.3	217.0	218.0	233.4	234.5	235.5	40.9
Helpers.....	21	1.046	1.026	246.7	245.2	248.0	262.8	259.1	254.1	41.2
Mosaic and terrazzo workers.....	35	1.468	1.466	(1)	(1)	(1)	(1)	(1)	(1)	41.4
Painters.....	68	1.467	1.482	257.5	266.2	270.8	270.2	289.5	292.4	40.4
Fresco.....	15	1.380	1.456	220.1	245.1	226.7	231.0	253.4	267.3	40.7
Sign.....	51	1.581	1.573	240.4	247.2	247.5	249.9	249.6	248.5	41.1
Plasterers.....	63	1.691	1.709	236.1	241.0	241.6	238.6	250.3	253.0	40.3
Plumbers and gas fitters.....	65	1.488	1.514	222.7	227.2	232.1	233.8	240.0	244.2	40.9
Sheet-metal workers.....	54	1.416	1.441	244.8	252.2	247.4	256.9	268.5	273.2	41.5
Slate and tile roofers.....	22	1.590	1.576	(1)	(1)	(1)	(1)	(1)	(1)	40.8
Steam and sprinkler fitters.....	79	1.511	1.525	229.7	236.2	239.5	241.0	252.2	254.6	41.3
Helpers.....	38	1.065	1.084	289.7	302.8	309.2	305.0	340.6	346.6	40.3

<sup>1</sup> No data for 1913.

TABLE 4.—NUMBER OF QUOTATIONS, AVERAGE WAGE RATES PER HOUR, 1930 AND 1931, AVERAGE FULL-TIME HOURS PER WEEK, 1931, AND INDEX NUMBERS OF HOURLY RATES FOR SELECTED YEARS BASED ON 1913—Continued

Trade	Number of quotations, May, 1931	Average rate of wages per hour		Index numbers of rates of wages per hour (1913=100)						Average hours per week, May, 1931	
		May, 1930	May, 1931	May, 1926	May, 1927	May, 1928	May, 1929	May, 1930	May, 1931		
<i>Building trades—Continued</i>											
Stone masons.....	57	\$1.626	\$1.642	253.1	256.0	259.3	266.5	266.4	269.0	40.6	
Structural-iron workers.....	74	1.542	1.564	218.5	235.5	235.7	236.0	248.1	251.6	41.9	
Finishers.....	33	1.599	1.598	220.7	228.5	230.2	240.0	257.2	257.1	41.6	
Tile layers.....	60	1.539	1.554	212.0	221.9	221.8	224.2	234.9	237.2	40.9	
Helpers.....	24	1.079	1.047	269.8	272.9	278.5	274.3	300.8	291.8	41.4	
Average, building trades.....	1,743	1.410	1.428	248.0	256.7	258.1	261.6	272.8	276.3	41.3	
<i>Chauffeurs and teamsters and drivers</i>											
Chauffeurs.....	460	.724	.737	226.3	242.1	243.2	244.2	249.4	253.9	53.0	
Teamsters and drivers.....	132	.766	.755	256.6	269.1	277.1	279.8	292.0	287.8	56.8	
Average, chauffeurs, etc.....	592	.732	.740							53.7	
<i>Granite and stone trades</i>											
Granite cutters.....	56	1.343	1.344	244.1	242.6	245.3	249.8	262.3	262.5	41.3	
Stone cutters.....	48	1.486	1.524	241.9	241.2	242.2	253.6	256.0	262.6	41.8	
Average, granite and stone trades.....	104	1.412	1.437							41.6	
<i>Miscellaneous trades</i>											
Laundry workers.....	41	.479	.481	(1)	(1)	(1)	(1)	(1)	(1)	48.0	
Linemen.....	50	1.128	1.135	(1)	(1)	(1)	(1)	(1)	(1)	44.4	
Longshoremen.....	50	.875	.868	242.0	236.7	248.6	250.1	253.5	251.5	44.8	
<i>Printing and publishing: Book and job</i>											
Bindery women.....	52	.544	.541	235.6	251.5	252.9	254.9	262.1	260.7	44.7	
Bookbinders.....	81	1.015	1.023	240.8	246.0	244.8	247.5	250.7	252.7	44.8	
Compositors.....	67	1.162	1.166	242.1	246.6	250.1	251.5	259.3	260.2	44.0	
Electrotypers.....	66	1.293	1.315	252.2	255.2	257.1	263.2	269.9	274.5	44.5	
Machine operators.....	70	1.240	1.192	215.2	223.0	224.6	228.0	238.0	228.8	43.9	
Machine tenders.....	37	1.267	1.218	219.9	227.1	216.8	219.9	233.2	224.2	44.2	
Photo-engravers.....	50	1.335	1.329	(1)	(1)	(1)	(1)	(1)	(1)	43.9	
Press assistants and feeders.....	150	.865	.880	281.9	285.3	287.0	289.7	294.8	299.9	44.3	
Pressmen:											
Cylinder.....	143	1.166	1.161	230.5	230.8	232.7	236.8	240.1	239.1	44.4	
Platen.....	110	.947	.948	255.8	258.3	253.9	257.8	259.9	260.2	44.4	
Average, book and job.....	826	1.074	1.068							44.3	
<i>Printing and publishing: Newspaper</i>											
Compositors:											
Day work.....	84	1.210	1.210	196.7	201.8	206.6	211.3	212.5	212.5	45.5	
Night work.....	77	1.315	1.311	193.4	199.7	203.0	205.3	203.6	203.0	45.1	
Machine operators, day work:											
Piece work.....	9	.145	.147	138.5	134.9	138.5	124.1	130.4	132.2	40.6	
Time work.....	82	1.220	1.239	201.6	208.9	213.8	217.4	216.7	220.0	45.1	
Machine operators, night work:											
Piece work.....	9	.156	.167	118.6	112.3	108.1	103.2	109.5	117.2	42.7	
Time work.....	74	1.333	1.339	195.7	196.9	205.9	207.5	207.0	207.9	44.8	
Machine tenders (machinists):											
Day work.....	70	1.206	1.204	185.2	194.5	198.4	201.7	205.1	204.7	45.5	
Night work.....	61	1.308	1.332	176.5	187.1	190.8	196.6	191.9	195.5	45.0	
Photo-engravers:											
Day work.....	43	1.342	1.354	(1)	(1)	(1)	(1)	(1)	(1)	43.8	
Night work.....	38	1.636	1.653	(1)	(1)	(1)	(1)	(1)	(1)	41.5	
Pressmen, web presses:											
Day work.....	126	1.095	1.104	212.2	223.3	224.9	228.1	229.3	231.2	46.8	
Night work.....	106	1.272	1.292	198.5	209.7	215.7	216.1	218.7	222.1	42.6	
Stereotypers:											
Day work.....	60	1.064	1.063	188.1	191.0	191.0	200.1	201.8	201.6	46.8	
Night work.....	55	1.228	1.241	187.9	188.4	188.6	198.3	202.8	204.9	42.4	
Average, newspaper.....	894	1.241	1.247							45.0	
Grand average.....	4,564	1.250	1.254	250.3	259.5	260.6	262.1	272.1	273.0	43.6	

<sup>1</sup> No data for 1913.

Table 5 shows the per cent of increase in weekly wage rates in 1931 as compared with specified years, beginning with 1907, the earliest year for which data are available. For lack of space certain years since 1907 are omitted. The figures are not index numbers, but may be converted into index numbers. The first line of the table shows that the weekly rate of bakers in 1931 was 194.9 per cent higher than in 1907, or slightly less than three times as much in 1931 as in 1907. Read as index numbers and taking 1907 as 100, the index number for 1931 is 294.9. If 1913 is taken as the base (100), then 1931 index number is 250.9.

In all the 34 trade classifications for which data reach back that far weekly rates more than doubled between 1907 and 1931 and two more than trebled.

Comparing 1931 wages per full-time week with those of 1930 the changes noted in individual trades are as follows: Bakers' wage rates show a decrease of 2.4 per cent. In the building trades 16 occupations show increases, while 23 show decreases. The increases ranged from one-tenth of 1 per cent for steam and sprinkler fitters and structural-iron workers to 22 per cent for inside wiremen, fixture hangers. Decreases in rates in the building trades ranged from two-tenths of 1 per cent for engineers, portable and hoisting, to 6.9 per cent for composition roofers' helpers. Chauffeurs' wage rates increased 2.1 per cent, while those of teamsters and drivers increased 1.3 per cent. Wages of granite cutters decreased nine-tenths of 1 per cent and those of stone cutters increased four-tenths of 1 per cent. Laundry workers' rates increased four-tenths of 1 per cent and those of linemen 6.6 per cent, while longshoremen's rates decreased four-tenths of 1 per cent. In book and job printing 5 occupations showed increases in rates and 5 decreases. The increases ranged from less than one-tenth of 1 per cent for platen pressmen to 1.7 per cent for press assistants and feeders; the decreases ranged from three-tenths of 1 per cent for cylinder pressmen to 4 per cent for machine operators. In the newspaper printing trades 11 occupations showed increases ranging from less than one-tenth of 1 per cent for day-work compositors, machine operators, and stereotypers, and 1 occupation showed a decrease of three-tenths of 1 per cent for night-work compositors.

TABLE 5.—PER CENT OF INCREASE IN RATES OF WAGES PER FULL-TIME WEEK IN 1931 AS COMPARED WITH SPECIFIED PRECEDING YEARS

Occupation	Per cent of increase in rates of wages per full-time week in 1931 as compared with—									
	1907	1913	1917	1919	1921	1923	1925	1927	1929	1930
<b>Bakery trades</b>										
Bakers.....	194.9	150.9	119.7	45.6	0.9	1.5	14.1	12.8	13.6	12.4
<b>Building trades</b>										
Asbestos workers.....	( <sup>2</sup> )	( <sup>2</sup> )	131.5	72.7	31.5	35.8	17.0	4.3	( <sup>3</sup> )	1.9
Bricklayers.....	133.6	125.6	112.2	78.0	32.2	19.5	7.2	1.9	11.3	11.3
Sewer, tunnel, and caisson.....	( <sup>2</sup> )	103.7	97.0	79.8	33.0	27.7	8.9	15.7	3.5	7.9
Building-labor group:										
Building laborers.....	154.5	137.9	113.2	63.7	13.5	18.4	11.7	.7	1.1	14.1
Hod carriers.....	183.9	175.8	136.3	73.5	16.9	28.7	10.6	11.0	.8	11.8
Plasterers' laborers.....	175.3	152.2	127.1	73.3	16.9	20.8	5.4	2.7	.3	12.6
Plumbers' laborers.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	53.1	12.1	7.5	1.8	11.9	18.3	1.5
Carpenters.....	168.3	146.1	114.6	71.5	26.4	22.0	11.7	1.0	1.6	1.9
Millwrights.....	( <sup>2</sup> )	( <sup>2</sup> )	95.6	50.9	17.5	12.9	12.1	14.9	8.6	3.8
Parquetry-floor layers.....	( <sup>2</sup> )	127.2	95.0	60.6	9.8	9.1	12.6	13.4	.1	.2
Wharf and bridge.....	( <sup>2</sup> )	( <sup>2</sup> )	125.7	92.3	31.8	30.4	10.4	11.5	.5	.4
Ship.....	( <sup>2</sup> )	( <sup>2</sup> )	106.5	53.4	38.3	34.3	42.9	47.4	14.2	13.8

See footnotes at end of table.



TABLE 5.—PER CENT OF INCREASE IN RATES OF WAGES PER FULL-TIME WEEK IN 1931 AS COMPARED WITH SPECIFIED PRECEDING YEARS—Continued

Occupation	Per cent of increase in rates of wages per full-time week in 1931 as compared with—									
	1907	1913	1917	1919	1921	1923	1925	1927	1929	1930
<i>Building trades—Continued</i>										
Cement finishers.....	147.9	129.9	116.4	76.9	26.9	25.3	12.8	1.6	3.1	1.6
Composition roofers.....	( <sup>2</sup> )	( <sup>2</sup> )	147.0	96.7	33.2	30.0	15.1	3.1	1.5	1.9
Helpers.....	( <sup>2</sup> )	( <sup>2</sup> )	77.4	47.1	4.8	5.3	13.6	12.3	6.9	16.9
Elevator constructors.....	( <sup>2</sup> )	( <sup>2</sup> )	113.9	73.9	28.2	29.1	9.9	.6	1.2	1.4
Helpers.....	( <sup>2</sup> )	( <sup>2</sup> )	139.2	86.3	28.0	28.2	11.2	.1	1.3	1.0
Engineers, portable and hoisting.....	( <sup>2</sup> )	138.0	124.5	83.7	39.5	35.4	21.5	8.9	6.5	1.2
Glaziers.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	93.0	36.2	28.6	10.0	1.1	1.3	1.4
Inside wiremen.....	178.5	149.9	123.5	76.7	27.7	30.8	11.0	1.3	1.7	.5
Fixture hangers.....	( <sup>2</sup> )	130.9	102.1	66.6	18.9	17.1	8.7	3.8	.6	.8
Lathers.....	( <sup>2</sup> )	136.0	117.0	81.5	25.7	20.6	2.8	12.7	11.2	.6
Marble setters.....	137.2	116.9	112.4	82.5	36.1	22.9	15.2	.9	16.3	11.2
Helpers.....	( <sup>2</sup> )	136.5	121.4	85.5	10.0	9.4	6.4	13.4	19.9	14.1
Mosaic and terrazzo workers.....	( <sup>2</sup> )	( <sup>2</sup> )	138.3	112.5	40.1	40.7	13.3	6.9	12.6	1.9
Painters:										
Building.....	201.7	163.1	127.0	76.7	29.9	25.9	12.8	4.2	6.0	.3
Fresco.....	( <sup>2</sup> )	146.7	112.8	75.1	29.2	28.7	20.5	6.6	13.5	5.1
Sign.....	( <sup>2</sup> )	127.9	115.1	64.0	17.8	12.3	1.4	12.9	12.2	1.6
Plasterers.....	137.9	128.8	116.4	78.3	29.9	20.5	6.2	.5	3.2	.4
Plumbers and gas fitters.....	146.0	122.8	111.2	70.4	25.4	22.4	9.9	( <sup>2</sup> )	11.8	.7
Sheet-metal workers.....	186.7	150.2	126.3	77.2	26.8	27.0	12.0	2.0	.5	.3
Slate and tile roofers.....	( <sup>2</sup> )	( <sup>2</sup> )	123.2	79.8	26.7	19.0	2.7	15.1	15.3	12.9
Steam and sprinkler fitters.....	166.8	133.3	114.5	76.4	39.9	36.5	13.0	1.7	.2	.1
Helpers.....	266.6	210.6	176.4	101.9	43.9	31.9	15.7	4.6	4.2	1.6
Stone masons.....	158.3	144.3	123.6	83.1	27.9	16.2	7.8	13.3	13.9	1.9
Structural-iron workers.....	162.1	135.9	116.2	67.4	29.8	33.8	16.8	1.3	1.7	.1
Finishers.....	( <sup>2</sup> )	142.7	123.8	77.3	32.3	38.7	23.4	6.0	1.3	1.9
Tile layers.....	( <sup>2</sup> )	116.4	104.1	82.4	36.3	26.7	9.0	1.6	11.2	1.3
Helpers.....	( <sup>2</sup> )	167.6	147.5	99.5	19.2	23.3	10.1	.4	.3	13.0
<i>Chauffeurs, teamsters, and drivers</i>										
Chauffeurs.....	( <sup>2</sup> )	103.8	86.7	40.0	16.8	17.5	5.9	1.7	2.3	2.1
Teamsters and drivers.....	( <sup>2</sup> )	162.7	133.8	66.6	31.7	30.3	17.8	9.4	6.1	1.3
<i>Granite and stone trades</i>										
Granite cutters.....	166.1	145.1	124.9	59.9	17.8	16.0	13.3	1.3	11.3	1.9
Stone cutters.....	154.6	145.0	122.5	77.0	30.9	25.2	11.6	2.9	12.0	.4
<i>Miscellaneous</i>										
Laundry workers.....	( <sup>2</sup> )	( <sup>2</sup> )	92.1	48.1	15.7	15.9	8.3	11.7	5.0	.4
Linemen.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	24.1	28.5	23.5	18.0	14.0	6.6
Longshoremen.....	( <sup>2</sup> )	91.4	60.9	28.4	5.7	11.5	2.6	6.5	.8	1.4
<i>Printing and publishing, book and job</i>										
Bindery women.....	( <sup>2</sup> )	( <sup>2</sup> )	125.4	56.2	5.7	6.2	3.6	3.4	2.0	1.8
Bookbinders.....	151.8	135.0	117.1	51.5	13.2	12.6	6.6	3.0	1.9	.6
Compositors.....	168.7	138.8	122.5	64.8	15.7	14.2	9.5	5.4	3.4	.1
Electrotypers.....	190.1	161.0	130.7	91.6	21.2	12.3	7.9	5.5	2.6	1.2
Machine operators.....	129.0	110.5	101.9	53.9	13.7	12.0	7.7	2.4	.2	14.0
Machine tenders.....	( <sup>2</sup> )	106.7	99.5	47.9	13.0	12.2	6.8	1.9	2.3	13.6
Photo-engravers.....	( <sup>2</sup> )	( <sup>2</sup> )	116.1	75.4	29.5	27.2	15.7	4.0	1.3	1.4
Press assistants and feeders.....	207.7	175.6	150.2	66.4	20.0	12.1	7.3	4.9	3.5	1.7
Pressmen:										
Cylinder.....	149.1	119.9	107.8	55.3	13.9	9.7	5.6	3.5	1.1	1.3
Platen.....	162.2	140.2	119.9	62.7	10.0	9.9	5.9	1.0	.8	( <sup>2</sup> )
<i>Printing and publishing, newspaper</i>										
Compositors:										
Day work.....	133.4	109.4	100.2	59.8	20.1	16.7	8.4	4.4	.8	( <sup>2</sup> )
Night work.....	116.7	102.0	95.1	55.0	17.9	11.9	7.7	1.8	1.5	1.3
Machine operators:										
Day work.....	136.9	116.5	106.4	62.8	24.4	17.9	10.5	5.3	1.4	1.9
Night work.....	120.8	107.0	98.5	57.0	21.8	15.6	9.5	5.5	.2	.4
Machine tenders:										
Day work.....	( <sup>2</sup> )	102.8	98.0	47.2	13.9	11.7	9.2	4.3	1.2	( <sup>2</sup> )
Night work.....	( <sup>2</sup> )	92.8	89.1	42.9	12.8	10.7	7.8	3.7	11.3	1.5
Photo-engravers:										
Day work.....	( <sup>2</sup> )	( <sup>2</sup> )	109.4	69.6	27.4	23.5	14.4	6.4	( <sup>2</sup> )	.6
Night work.....	( <sup>2</sup> )	( <sup>2</sup> )	123.2	74.4	33.8	26.0	18.2	6.3	3.4	.8
Pressmen, web presses:										
Day work.....	157.2	129.2	119.6	67.2	24.5	23.2	10.6	3.3	1.3	.8
Night work.....	142.3	130.7	123.5	66.6	26.0	24.2	11.6	5.9	2.6	1.5
Stereotypers:										
Day work.....	126.4	98.3	89.1	61.6	16.9	13.8	8.1	5.2	1.0	( <sup>2</sup> )
Night work.....	120.1	100.5	92.1	63.8	17.3	13.9	9.1	6.8	1.5	.4

<sup>1</sup> Decrease.<sup>2</sup> Not reported.<sup>3</sup> Less than one-tenth of 1 per cent decrease.<sup>4</sup> Less than one-tenth of 1 per cent increase.

# Wage-Rate Changes in Manufacturing Industries, September, 1931

OF 15,725 establishments reporting to the Bureau of Labor Statistics, 15,358, or 97.7 per cent of the total, reported no wage-rate changes during the month ending September 15, 1931. These 15,358 establishments had 2,819,542 employees, or 97.9 per cent of the total of 2,881,271 employees in all establishments from which wage-rate data were requested.

Five establishments reported wage-rate increases during the same period, affecting 147 persons, for whom the average wage-rate increase was 14.8 per cent.

Three hundred and sixty-two establishments, or 2.3 per cent of the total number reporting, reported wage-rate decreases. These decreases affected 61,582 employees, or 2.1 per cent of all employees in the reporting establishments. The average decrease for these employees was 10.6 per cent.

## WAGE CHANGES REPORTED IN MANUFACTURING INDUSTRIES BETWEEN AUGUST 15 AND SEPTEMBER 15, 1931

Industry	Establishments reporting	Total number of employees	Number of establishments reporting			Number of employees having		
			No wage changes	Wage increases	Wage decreases	No wage changes	Wage increases	Wage decreases
All manufacturing industries	15,725	2,881,271	15,358	5	362	2,819,542	147	61,582
Per cent of total	100.0	100.0	97.7	(1)	2.3	97.9	(1)	2.1
Slaughtering and meat packing	203	80,862	201		2	80,354		508
Confectionery	318	38,799	312		6	38,143		656
Ice cream	320	13,716	316		4	13,678		38
Flour	391	15,524	383		8	15,324		200
Baking	709	63,386	693		16	63,146		240
Sugar refining, cane	14	8,176	14			8,176		
Cotton goods	501	187,016	466		35	176,852		10,164
Hosiery and knit goods	347	83,025	336		11	81,162		1,863
Silk goods	255	48,325	251	2	2	48,055	98	172
Woolen and worsted goods	186	56,422	180		6	55,956		466
Carpets and rugs	30	16,825	30			16,825		
Dyeing and finishing textiles	131	36,608	129		2	36,144		464
Clothing, men's	326	61,801	325		1	61,771		30
Shirts and collars	105	16,985	103		2	16,746		239
Clothing, women's	377	28,211	376		1	28,128		83
Millinery and lace goods	119	13,407	117		2	13,362		45
Iron and steel	193	198,258	166		27	179,617		18,641
Cast-iron pipe	41	8,622	39		2	8,472		150
Structural-iron work	169	22,331	162		7	21,809		522
Foundry and machine-shop products	1,035	160,728	996	1	38	156,522	24	4,182
Hardware	94	24,001	91		3	23,852		149
Machine tools	144	17,633	142		2	17,112		521
Steam fittings	103	22,652	100		3	21,614		1,038
Stoves	124	16,084	122		2	15,858		226
Lumber, sawmills	639	81,395	620		19	79,159		2,236
Lumber, millwork	319	20,604	307		12	19,620		984
Furniture	418	47,340	402		16	45,711		1,629
Leather	138	23,560	135		3	23,132		428
Boots and shoes	290	103,969	286		4	103,436		533
Paper and pulp	333	66,167	311		22	61,891		4,276
Paper boxes	297	23,271	290		7	22,536		735
Printing, book and job	600	51,953	587		13	50,878		1,075
Printing, newspapers	418	71,887	416		2	71,806		81
Chemicals	161	33,442	161			33,442		
Fertilizers	211	7,668	210		1	7,638		30

<sup>1</sup> Less than one-tenth of 1 per cent.

## WAGE CHANGES REPORTED IN MANUFACTURING INDUSTRIES BETWEEN AUGUST 15 AND SEPTEMBER 15, 1931—Continued

Industry	Establishments reporting	Total number of employees	Number of establishments reporting			Number of employees having		
			No wage changes	Wage increases	Wage decreases	No wage changes	Wage increases	Wage decreases
Petroleum refining.....	101	46,910	101			46,910		
Cement.....	115	18,005	112		3	17,924		81
Brick, tile, and terra cotta.....	719	27,691	709		10	27,313		378
Pottery.....	116	16,449	115		1	16,439		10
Glass.....	189	42,616	188		1	42,582		34
Stamped and enameled ware.....	79	13,468	72		7	12,632		836
Brass, bronze, and copper products.....	150	26,729	146		4	26,174		555
Chewing, smoking tobacco, and snuff.....	27	8,330	27			8,330		
Cigars and cigarettes.....	179	48,976	174		5	47,985		991
Automobiles.....	210	246,076	207		3	246,037		39
Carriages and wagons.....	42	636	42			636		
Car building and repairing, electric-railroad.....	443	24,983	443			24,983		
Car building and repairing, steam-railroad.....	525	85,416	524		1	85,362		54
Agricultural implements.....	72	6,830	70		2	6,442		388
Electrical machinery, apparatus, and supplies.....	203	139,994	202		1	139,971		23
Pianos and organs.....	56	3,949	56			3,949		
Rubber boots and shoes.....	8	11,555	8			11,555		
Automobile tires and inner tubes.....	37	45,261	36		1	45,006		255
Shipbuilding.....	85	32,543	85			32,543		
Aircraft.....	37	6,769	36	1		6,748	21	
Aluminum manufacture.....	15	2,804	15			2,804		
Beet sugar.....	47	4,505	47			4,505		
Beverages.....	268	10,780	267		1	10,775		5
Bolts, nuts, washers, and rivets.....	65	7,936	64		1	7,870		66
Butter.....	165	3,887	162		3	3,881		6
Cash registers, adding machines, and calculating machines.....	49	16,172	47	1	1	15,528	4	640
Clocks.....	25	7,416	24		1	6,953		463
Corsets and allied garments.....	25	4,765	25			4,765		
Cottonseed oil, cake and meal.....	27	1,011	26		1	961		50
Cotton, small wares.....	92	8,309	92			8,309		
Cutlery (not including silver and plated cutlery) and edge tools.....	101	7,505	100		1	7,398		107
Forgings, iron and steel.....	27	3,161	27			3,161		
Fur-felt hats.....	27	5,159	27			5,159		
Gas and electric fixtures.....	50	5,999	47		3	5,711		288
Jewelry.....	147	12,872	144		3	12,302		570
Marble, granite, slate, and other stone products.....	191	7,350	187		4	7,339		11
Men's furnishings.....	69	5,824	65		4	5,727		97
Paint and varnish.....	328	16,095	323		5	16,023		72
Plated ware.....	38	11,693	36		2	11,100		593
Plumbers' supplies.....	64	4,985	62		2	4,656		329
Radio.....	43	26,911	43			26,911		
Rayon.....	19	25,092	19			25,092		
Rubber goods, other than boots.....	83	18,460	83			18,460		
Smelting and refining.....	15	2,098	15			2,098		
Soap.....	40	7,820	40			7,820		
Tools (not including edge tools, machine tools, files, or saws).....	124	7,909	123		1	7,859		50
Tin cans and tinware.....	44	6,283	42		2	6,239		44
Turpentine and rosin.....	23	1,318	22		1	1,118		200
Typewriters and supplies.....	16	9,180	14		2	7,718		1,462
Wirework.....	46	4,133	42		4	3,852		281



## Wage Changes Reported by Trade-Unions Since July, 1931

UNION and municipal wage and hour changes reported to the bureau during the past month and occurring during the past 4 months are shown in the following table. The tabulation shown covers 8,515 workers, 264 of whom were reported to have gone on the 5-day week.

RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, JULY TO OCTOBER, 1931

Industry or occupation, and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
<b>Building trades:</b>					
Bricklayers and masons—		<i>Per hour</i>	<i>Per hour</i>		
Fort Worth, Tex., and vicinity.....	Aug. 15	\$1.62½	\$1.12½	40	40
Oil City, Pa.....	Sept. 26	1.62½	1.50	48	44
Racine, Wis.....	Sept. 15	1.50	1.25	44	44
Carpenters—					
Lincoln Park, Mich.....	July 13	.80	1.00	44	40
Salem, Oreg.....	Aug. 15	1.00	1.75	44	40
Cement finishers—					
Fort Worth, Tex.....	do	1.25	1.00	44	44
Galveston, Tex., and vicinity.....	do	1.25	1.00	40	40
Richmond, Va.....	Sept. 1	1.00	1.25	44	44
Laborers—					
Salem, Oreg., and vicinity.....	do	.62½	1.50	44	44
Westchester County, N. Y.....	do	.45	.60	60	48
Painters, Elmira, N. Y.....	July 15	1.18¾	1.12½	40	40
Plasterers—					
Bloomington, Ind.....	Aug. 12	1.25	1.00	44	44
Boise, Idaho.....	Aug. 4	1.50	1.25	44	44
Dayton, Ohio.....	Sept. 21	1.56¼	1.25	40	40
Fort Worth, Tex.....	Aug. 15	1.62½	1.12½	40	40
Galveston, Tex., and vicinity.....	do	1.62½	1.37½	40	40
New Castle, Ind.....	do	1.25	1.00	44	44
Richmond, Va.....	Sept. 1	1.00	1.25	44	44
Santa Monica, Calif., and vicinity.....	July 27	1.50	1.12½	40	40
Shawnee, Okla.....	Aug. 3	1.62½	1.25	44	44
Wheeling, W. Va.....	Aug. 1	1.25	1.50	40	40
Sheet-metal workers, Fort Worth, Tex.....	Aug. 21	1.37½	1.00	40	40
Structural-iron workers, Pittsburgh, Pa.....	July 6	( <sup>2</sup> )	( <sup>3</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Tile setters, Racine, Wis.....	Sept. 15	1.50	1.25	44	44
<b>Clothing:</b>					
Cutters and tailors, Denver, Colo.....	Aug. 12	( <sup>3</sup> )	( <sup>3</sup> )	48	44
Shirt makers—					
New York, N. Y.....	Aug. 29	( <sup>3</sup> )	( <sup>3</sup> )	48	44
Trevorton, Pa.....	July 17	( <sup>2</sup> )	( <sup>4</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Furniture:</b>					
Cabinet makers, New York, N. Y.....	Aug. 18	( <sup>2</sup> )	( <sup>3</sup> )	49	44
<b>Light, heat, power, and water:</b>					
Pipe-line laborers—					
Harold, Ky.....	July 31	.25	.30	( <sup>2</sup> )	( <sup>2</sup> )
Lawrenceville, Pa.....	Aug. 11	.40	.30	( <sup>2</sup> )	( <sup>2</sup> )
Peg, Ky.....	July 28	.25	.30	( <sup>2</sup> )	( <sup>2</sup> )
<b>Mining:</b>					
Coal miners, Rachel, W. Va.—					
Pick miners (loaders).....	July 18	¢.50	¢.38	( <sup>2</sup> )	( <sup>2</sup> )
Machine miners (loaders).....	do	¢.38	¢.30	( <sup>2</sup> )	( <sup>2</sup> )
<b>Motion-picture operators, Passaic County, N. J.:</b>					
First-class theaters.....	Sept. 1	<i>Per week</i> \$106.25	<i>Per week</i> \$95.00	35	42
Second-class theaters.....	do	62.50	50.00	35	42
Paper workers, Appleton, Biron, and Wisconsin Rapids, Wis.....	Aug. 15	( <sup>2</sup> )	( <sup>3</sup> )	48	40

<sup>1</sup> Temporary change.

<sup>2</sup> Not reported.

<sup>3</sup> 10 per cent increase.

<sup>4</sup> 10 per cent reduction.

<sup>5</sup> 10-15 per cent increase.

<sup>6</sup> Per ton.

## RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, JULY TO OCTOBER, 1931—Continued

Industry or occupation, and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Printing trades:					
Compositors—					
Bristol, Tenn.: Newspaper, night.....	Oct. 1	<i>Per week</i> \$43.00	<i>Per week</i> \$45.00	48	48
Des Moines, Iowa:					
Job work, day.....	do	45.00	45.50	44	44
Job work, night.....	do	48.50	49.50	44	44
Electrotypers, Springfield, Ohio—					
Branchmen—					
Day work.....	do	47.00	48.00	48	48
Night work.....	do	50.00	51.00	48	48
Finishers—					
Day work.....	do	50.00	51.00	48	48
Night work.....	do	53.00	54.00	48	48
Molders—					
Day work.....	do	50.00	51.00	48	48
Night work.....	do	53.00	54.00	48	48
Pressmen, Toledo, Ohio—					
Day work.....	July 1	48.50	40.42	48	40
Night work.....	do	54.50	45.42	48	40
Municipal:					
Boston, Mass., cleaners, State House.....	Aug. 27	16.50	18.00	33	33
Long Beach, Calif., city employees.....	Sept. 4	( <sup>4</sup> )	( <sup>4</sup> )	44	44

<sup>4</sup> 10 per cent reduction.<sup>7</sup> Various salaries.

## Entrance Wage Rates for Common Labor, July 1, 1931

IN CONTINUATION of the annual surveys made by the Bureau of Labor Statistics concerning the wage rates paid adult male common labor when first hired, data are here presented compiled from reports covering 94,529 workers employed at these rates on July 1, 1931.

The term "common labor" has many interpretations among different industries and even among different localities or plants in the same industry. Also, many employers make a practice of increasing the rate of pay of a laborer after a stated length of service, provided a sufficient degree of fitness for the job has been developed; otherwise the employee is dropped. Owing to these difficulties in the way of securing comparable data as to wage rates for common labor, the Bureau of Labor Statistics has limited its study to entrance rates alone—that is, the rates of pay per hour for unskilled adult male common labor when first hired.

This survey has been confined to 13 important industries, in which a considerable number of common laborers are employed. With the exception of the general contracting industry, the information relating to the remaining 12 industries has been supplied by firms which also furnish monthly volume of employment information to the Bureau.

In some cases two rates have been reported by an establishment—for example, one for the 10-hour day and another for the 8-hour day, or one for white laborers and one for colored or Mexican workers. In the following tabulations, however, these hourly or racial distinctions have not been maintained. It is apparent that the lowest rates are shown in those geographic divisions where there are large numbers

of colored or Mexican workers, while the highest rates are reported in those localities where the 8-hour day is more or less prevalent.

In the following tabulation is shown the number of common laborers employed at the entrance rate on July 1, 1931, in the establishments reporting in the industries surveyed:

Automobiles.....	4, 287
Brick, tile, and terra cotta.....	2, 870
Cement.....	1, 758
Electrical machinery, apparatus, and supplies.....	4, 542
Foundry and machine-shop products.....	5, 009
Iron and steel.....	12, 560
Leather.....	2, 144
Lumber (sawmills).....	7, 372
Paper and pulp.....	7, 489
Petroleum refining.....	2, 586
Slaughtering and meat packing.....	9, 821
Public utilities.....	9, 798
General contracting.....	24, 293
Total.....	94, 529

A regrouping of these workers into the nine geographic divisions in which the reporting plants are located shows the following distribution:

New England.....	4, 398
Middle Atlantic.....	21, 197
East North Central.....	22, 463
West North Central.....	15, 238
South Atlantic.....	9, 655
East South Central.....	3, 500
West South Central.....	6, 081
Mountain.....	3, 688
Pacific.....	8, 309
Total.....	94, 529

The average entrance rate per hour on July 1, 1931, in the combined 13 industries surveyed was 41.2 cents. This is a weighted hourly rate computed by multiplying the number of common laborers employed at the entrance rate in each plant by the rate paid per hour, and dividing the combined aggregate for all plants by the total number of common laborers reported. The highest hourly entrance rate, \$1.25, was reported in the general contracting industry in the Middle Atlantic and the East North Central divisions, and the lowest hourly entrance rate, 10 cents, was reported in the lumber (sawmill) industry in the South Atlantic division.

The automobile industry reported the highest average entrance rate per hour, 57.7 cents. This rate is higher than the average rate shown for this industry in the 1930 survey (48.2 cents) and is due to the fact that several of the higher-wage plants reported a considerable increase in the number of common laborers working at the entrance rate in 1931 over the number reported in 1930. The average entrance rate in each of the remaining 12 industries surveyed was below the average shown in July, 1930, with the exception of the public-utilities industry, which reported no change over the year interval. The petroleum-refining industry reported an average entrance rate of 47.5 cents per hour; public utilities, 44.6 cents per hour; electrical machinery, apparatus, and supplies, 42.9 cents per hour; and general contracting 42.6 cents per hour. Two additional industries reported



entrance rates of over 40 cents per hour, the iron and steel and the slaughtering and meat-packing industries reporting average hourly entrance rates of 41.8 cents and 41.7 cents, respectively. The lowest average entrance rate per hour, 27.7 cents, was reported in the saw-mill industry.

The New England, Middle Atlantic, and East North Central geographic divisions each reported average entrance rates of slightly more than 45 cents per hour, the New England division reporting the highest rate, 45.4 cents. The East South Central group of States reported the lowest average entrance rate of the 9 geographic divisions, 25.2 cents per hour.

The weighted average entrance rates per hour for all industries represented in this study have been as follows: July 1, 1926, 42.8 cents; July 1, 1927, 42.6 cents; July 1, 1928, 44.9 cents; July 1, 1929, 43.7 cents; July 1, 1930, 43.1 cents; and July 1, 1931, 41.2 cents.

Omitting data for general contracting, the average entrance rates per hour over the same period have been: July 1, 1926, 40.9 cents; July 1, 1927, 40.4 cents; July 1, 1928, 44.1 cents; July 1, 1929, 42.1 cents; July 1, 1930, 41.6 cents; and July 1, 1931, 40.7 cents.

The following table shows, for each industry included, the high, low, and average common labor entrance rates per hour on July 1, 1931, in each geographic division and in the United States as a whole:

#### HOURLY ENTRANCE WAGE RATES FOR COMMON LABOR, JULY 1, 1931

[The rates on which this table is based are entrance rates paid for adult male common labor]

Industry	United States	Geographic division <sup>1</sup>								
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Automobiles:	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Low	35.0		35.0	35.0	40.0					50.0
High	75.0		75.0	75.0	75.0					55.0
Average	57.7		62.4	46.4	72.8					54.0
Brick, tile, and terra cotta:										
Low	13.5	35.0	21.5	30.0	28.0	13.5	15.0	22.5	38.5	37.0
High	51.0	45.0	51.0	48.8	40.0	30.0	37.5	25.0	40.0	50.0
Average	33.9	36.2	41.4	32.3	31.1	21.5	20.6	23.9	39.0	42.9
Cement:										
Low	25.0		40.0	30.0	31.5		25.0	25.0		34.0
High	50.0		44.0	44.0	44.0		36.0	28.0		50.0
Average	37.2		42.1	39.8	33.8		29.9	27.4		40.9
Electrical machinery, apparatus, and supplies:										
Low	32.0	32.0	38.0	35.0	35.0					
High	58.0	48.0	54.0	58.0	43.0					
Average	42.9	44.2	43.7	42.7	37.1					
Foundry and machine-shop products:										
Low	17.0	30.0	30.0	30.0	34.0	17.0	27.5	22.5	40.0	45.0
High	56.3	45.0	51.0	55.0	45.0	43.8	40.0	30.0	45.0	56.3
Average	38.2	37.8	41.3	40.7	40.7	27.7	31.8	25.5	43.1	50.4
Iron and steel:										
Low	20.0	35.0	28.0	31.5	35.0	20.0	23.5		49.0	45.0
High	50.0	45.0	50.0	50.0	40.0	44.0	31.0		49.0	45.0
Average	41.8	41.7	42.0	45.1	37.0	36.1	25.4		49.0	45.0

<sup>1</sup> *New England:* Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. *Middle Atlantic:* New Jersey, New York, Pennsylvania. *East North Central:* Illinois, Indiana, Michigan, Ohio, Wisconsin. *West North Central:* Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. *South Atlantic:* Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia. *East South Central:* Alabama, Kentucky, Mississippi, Tennessee. *West South Central:* Arkansas, Louisiana, Oklahoma, Texas. *Mountain:* Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, Wyoming. *Pacific:* California, Oregon, Washington.

## HOURLY ENTRANCE WAGE RATES FOR COMMON LABOR, JULY 1, 1931—Continued

Industry	United States	Geographic division								
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Leather:	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Low.....	20.0	40.0	33.3	30.0	20.0	20.0	20.0	20.0	22.5	22.0
High.....	55.0	54.2	50.0	49.0	40.0	33.0	33.0	33.0	55.0	55.0
Average.....	39.1	46.5	42.9	38.7	34.0	32.9	32.9	32.9	51.0	51.0
Lumber (sawmills):										
Low.....	10.0	30.0	32.5	26.0	30.0	10.0	15.0	15.0	22.5	27.0
High.....	50.0	35.0	32.5	37.5	30.0	32.5	25.0	25.0	42.0	50.0
Average.....	27.7	32.5	32.5	28.7	30.0	14.1	16.4	20.7	36.1	36.3
Paper and pulp:										
Low.....	17.5	35.0	35.0	25.0	31.5	25.0	17.5	22.0	36.0	36.0
High.....	53.0	53.0	50.0	48.5	45.0	42.0	30.0	30.0	51.3	51.3
Average.....	37.2	42.7	40.6	39.6	38.5	36.5	23.5	26.3	37.5	37.5
Petroleum refining:										
Low.....	30.0	45.0	45.0	50.0	30.0	35.0	35.0	45.0	53.0	53.0
High.....	62.0	53.0	50.0	50.0	50.0	35.0	50.0	56.3	62.0	62.0
Average.....	47.5	48.5	48.1	50.0	39.9	35.0	43.2	50.6	56.4	56.4
Slaughtering and meat packing:										
Low.....	30.0	37.0	35.0	35.0	37.5	40.0	30.0	40.0	40.0	40.0
High.....	45.0	37.0	45.0	45.0	43.0	40.0	37.5	40.0	42.5	42.5
Average.....	41.7	37.0	40.8	42.3	42.2	40.0	37.2	40.0	41.4	41.4
Public utilities: <sup>2</sup>										
Low.....	15.0	30.0	30.0	32.5	30.0	15.0	25.0	28.0	35.0	35.0
High.....	67.5	60.0	61.3	67.5	40.0	45.0	40.0	36.0	42.0	60.0
Average.....	44.6	49.7	44.8	53.4	34.0	36.9	31.9	30.3	36.1	50.5
General contracting: <sup>3</sup>										
Low.....	15.0	35.0	25.0	30.0	15.0	15.0	15.0	20.0	30.0	35.0
High.....	125.0	90.0	125.0	125.0	87.5	50.0	35.0	50.0	62.5	75.0
Average.....	42.5	51.4	49.7	54.1	38.1	28.7	25.1	30.0	45.3	50.0
Total:										
Low.....	10.0	30.0	21.5	25.0	15.0	10.0	15.0	15.0	22.5	22.0
High.....	125.0	90.0	125.0	125.0	87.5	50.0	40.0	50.0	62.5	75.0
Average.....	41.2	45.4	45.1	45.2	42.9	28.9	25.2	29.9	43.1	43.5

<sup>2</sup> Includes street railways, gas works, waterworks, and electric power and light plants.<sup>3</sup> Includes building, highway, public works and railroad construction.

## Wages and Labor Conditions in Federated Malay States, 1930

THE following rates of pay for South Indian laborers in specified localities in the Federated Malay States are taken from the annual report of the Labor Department of the Federated Malay States for 1930.

## DAILY WAGES OF SOUTH INDIAN LABORERS IN FEDERATED MALAY STATES, 1930

[Conversion on basis of Dutch cent = \$0.0057 United States currency]

Occupation	Perak		Selangor		Negri Sembilan		Pahang	
	Dutch cents	United States currency (cents)	Dutch cents	United States currency (cents)	Dutch cents	United States currency (cents)	Dutch cents	United States currency (cents)
Stores and factories.....	45-50	26-29	40-50	23-29	40-48	23-27	50-60	29-34
Tappers (men).....	40-45	23-26	40-45	23-26	40	23	47-55	27-31
Tappers (women).....	32-40	18-23	32-35	18-20	32	18	37-50	21-29
Field workers (men).....	40	23	40-45	23-26	40	23	47-55	27-31
Field workers (women).....	32-40	18-23	32-35	18-20	32	18	37-50	21-29

In the summer of 1930, the Indian Immigration Committee prescribed standard rates of wages for all key districts, representing a reduction of 20 per cent from the previous rates. The reduction in wages, according to the report, was not sufficient "to reduce the cost of production to the market price of rubber," so the employers "decided to increase the tasks of laborers and to require each laborer to work 8 hours a day to earn the standard wage." This is reported to have created a surplus of labor necessitating the repatriation to India of large numbers of persons who had immigrated to the Federated Malay States. The standard wages prescribed in the key districts are said to have become the prevailing rates for South Indian laborers throughout the Peninsula. In the healthier and more settled districts, men receive 40 Dutch cents (23 cents) and women 32 Dutch cents (18 cents); in the less healthy, more remote, or more expensive districts, men receive 47 Dutch cents (27 cents) and women 37 Dutch cents (21 cents). Javanese laborers receive practically the same wages as the South Indians, but the rates for Chinese workers are said to be slightly higher.

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#### Official Agreement Wages in Germany, 1930 and 1931

OFFICIAL agreement wage statistics were introduced in Germany in 1922 and have been published since the beginning of 1924, but owing to inflation and postinflation conditions the collection and quotation of the wage data presented many difficulties, necessitating a revision of such statistics.<sup>1</sup> The revision was greatly facilitated by the industrial and occupational census in 1925 and by an investigation of actual earnings in 11 industries undertaken by the Federal Statistical Office since September, 1927.

The table following shows average agreement (union) hourly wages (including both time work and piece work) in 17 industries in Germany on April 1, 1930, and on July 1, 1931. Although the quoted agreement wage rates include not only the basic or minimum wage and also various agreement allowances, nevertheless they differ from actual earnings to a certain extent (see comparison for textile industry in Germany in the Labor Review for September, 1931, p. 198).

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<sup>1</sup> Germany. Statistisches Reichsamt. *Wirtschaft und Statistik*, 1 September-Heft, 1931, Nr. 17, pp. 637-640.



# WAGES AND HOURS OF LABOR

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## AVERAGE HOURLY AGREEMENT (UNION) WAGES (TIME WORK AND PIECE WORK) IN GERMAN INDUSTRIES, 1930 AND 1931

[Conversions on basis of mark (100 pfennigs) = 23.8 cents]

Industry	Males						Females			
	Skilled		Semiskilled		Helpers (unskilled)		Skilled and semiskilled		Helpers (unskilled)	
	Apr. 1, 1930	July 1, 1931	Apr. 1, 1930	July 1, 1931	Apr. 1, 1930	July 1, 1931	Apr. 1, 1930	July 1, 1931	Apr. 1, 1930	July 1, 1931
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Anthracite coal mining <sup>1</sup> .....	28.8	27.0			18.0	16.9				
Lignite coal mining <sup>1</sup> .....	21.6	20.9	19.7	19.1	18.8	18.3				
Metal works <sup>2</sup> .....	22.7	21.6	20.7	19.6	18.2	17.3			13.3	12.5
Chemical <sup>3</sup> .....	25.6	24.3	20.6	19.6					13.8	13.1
Building.....	29.8	27.0			23.4	21.0				
Cities with 1,000,000 inhabitants and over.....	36.8	34.2			27.8	25.8				
Cities with 100,000 to 1,000,000 inhabitants.....	31.9	28.6			24.9	21.0				
Cities with 50,000 to 100,000 inhabitants.....	29.9	27.1			23.4	20.9				
Localities with under 50,000 inhabitants and rural districts.....	27.3	24.7			21.5	19.3				
Paper manufacture <sup>4</sup> .....	<sup>3</sup> 22.3	<sup>3</sup> 20.9			17.4	16.4			11.8	11.0
Paper goods.....	27.5	25.8	24.7	23.1	20.6	19.2	16.2	15.2	13.0	12.1
Business books and stationery.....	27.5	25.8	24.7	23.1	19.6	18.4	15.9	14.9		
Bookbinding on large scale.....	29.8	28.1					17.9	16.8		
Book printing and binding.....	26.8	25.2					15.9	14.9		
Pasteboard goods.....	25.0	23.2			21.3	19.8	15.7	14.6	13.0	12.1
Book printing.....	<sup>4</sup> 27.9	<sup>4</sup> 26.3			24.6	23.0			15.3	14.4
Wood printing.....	27.9	27.2	25.0	24.4	22.9	22.3				
Ceramic.....	20.8	19.5			17.3	16.2	12.9	12.0	10.6	10.0
Textiles <sup>2</sup> .....	18.1	17.1	18.1	17.1	15.1	14.3	14.0	13.2	11.3	10.7
Worsted.....	20.5	19.8	20.5	19.8	15.7	15.1	13.3	12.8	11.4	11.0
Wool.....	17.3	16.4	17.3	16.4	15.2	14.5	14.6	13.8	11.8	11.1
Cotton.....	18.0	16.9	18.0	16.9	14.9	14.1	14.2	13.4	11.2	10.6
Linen.....	16.8	15.7	16.8	15.7	14.3	13.4	12.8	12.0	10.6	10.0
Silk.....	17.4	16.4	17.4	16.4	16.2	15.3	15.3	14.4	12.3	11.6
Velvet weaving.....	20.7	19.5	20.7	19.5	16.1	15.2	15.9	14.9	12.6	12.3
Ribbon weaving.....	19.0	17.9	19.0	17.9	16.1	15.2	14.4	13.5	12.2	11.3
Laces and curtains.....	20.4	19.2	20.4	19.2	15.1	14.2	13.7	13.0	10.6	10.1
Hosiery.....	18.3	17.3	18.3	17.3	15.1	14.3	12.6	12.1	10.9	10.4
Clothing industry.....	22.9	22.0					14.3	13.9		
Men's clothing, custom-made.....	23.4	22.6								
Women's clothing, custom-made.....							14.6	14.1		
Men's clothing, ready-made.....	22.3	21.0					16.0	15.1		
Women's clothing, ready-made.....							15.2	15.2		
Working apparel.....	21.2	20.3					13.0	12.4		
Underwear.....	22.5	21.7					12.8	12.4		
Shoes.....	23.4	22.2	23.4	22.2			17.7	16.8		
Brewery <sup>2</sup> .....	29.4	29.0			26.0	25.6			16.5	16.5
Confectionery, baking and pastry.....	24.0	22.8			20.5	19.5			13.8	13.1
State railways <sup>2</sup> .....	22.9	21.5	19.0	18.0	18.5	17.7				
State post office <sup>2</sup> .....	21.4	20.3	18.4	17.6	18.0	17.4				
Production goods industries.....	26.4	24.6			20.5	18.9				
Consumption goods industries.....	22.4	21.5			17.7	17.0				
All industries.....	24.6	23.2	19.9	18.8	19.3	18.0	15.4	14.5	12.8	12.1
Transportation.....	22.7	21.3	18.9	17.9	18.4	17.6				
Industry and transportation.....	24.5	23.1	19.8	18.8	19.2	18.0	15.4	14.5	12.8	12.1

<sup>1</sup> Not including value of coal allowances, but including social allowances.

<sup>2</sup> Including social allowances.

<sup>3</sup> Foreman, paper machine.

<sup>4</sup> Hand compositor.

## Wages and Hours in the Brewing Industry in Germany, 1930

**T**HE results of an investigation of wages and hours of labor in the brewing industry in Germany, undertaken by the German Federal Statistical Office in August, 1930, have recently been published.<sup>1</sup>

The investigation covered 30,788 workers in 459 establishments in 296 localities, and included nearly one-half of the workers engaged in the beer-brewing industry in Germany, with the exception of occupations not directly related to beer brewing.

The table below shows average hourly earnings, average hourly agreement wages, average weekly working hours, and average weekly earnings:

EARNINGS, WAGES, AND HOURS OF WORK, IN THE GERMAN BREWING INDUSTRY, BY OCCUPATION, 1930

[Conversions on basis of mark=23.8 cents]

Occupation	Number of workers included	Average hourly earnings		Agreement hourly wages	Average weekly working hours	Average weekly earnings	Free beer per week, (liters <sup>1</sup> )	Average weekly earnings, including free beer
		Including allowances	Excluding allowances					
		Cents	Cents	Cents				
Brewers.....	7,963	29.5	28.9	28.8	46.4	\$13.71	15.4	\$14.21
Truck drivers.....	1,774	29.7	28.2	28.1	52.2	15.47	13.6	15.95
Beer drivers.....	5,955	29.2	27.6	27.5	50.2	14.67	13.4	15.15
Drivers' helpers.....	3,423	27.8	26.8	26.6	49.2	13.69	12.3	14.15
Teamsters.....	1,074	27.7	26.6	26.5	48.6	13.45	12.2	13.94
Assistants, male, over 20 years.....	8,428	26.1	25.6	25.5	46.5	12.14	12.8	12.62
Female workers, over 18 years.....	2,141	16.2	16.1	16.1	43.8	7.12	5.5	7.32

<sup>1</sup> One liter=1.06 quarts, valued at 20 pfennigs (4.8 cents) per liter.

## Wages of Metallurgical Workers in Province of Carnaro, Italy

**A**N OUTLINE of a collective contract between the Fascist Industrial Union of the Province of Carnaro and the Provincial Union of the Fascist Industrial Syndicates of Fiume, effective April 21, 1931, applicable to all mechanical works, foundries, shipyards, and similar industries, was furnished this bureau under date of July 14, 1931, by Rollin R. Winslow, consul at Trieste, Italy.

The hourly rates as given in the report, considering 19 lire as equal to \$1, are as follows:

	Lire
Specialized workers.....	3.00 (16 cents)
Qualified workers.....	2.25 (12 cents)
Specialized manual labor.....	2.00 (11 cents)
Ordinary manual labor.....	1.85 (10 cents)
Apprentices:	
18 to 19 years.....	1.20 (6 cents)
16 to 17 years.....	.85 (4 cents)
Boys, under 16 years.....	.45 (2 cents)
Women, over 16 years:	
Group A.....	1.15 (6 cents)
Group B.....	.90 (4 cents)

Additional rates are as follows: Overtime—First two hours, 20 per cent; next four hours, 40 per cent; thereafter, 65 per cent. Holidays—First four hours, 35 per cent; thereafter, 65 per cent. Night work—15 per cent.

<sup>1</sup> Germany. Statistisches Reichsamt. Wirtschaft und Statistik, 1 Juni-Heft, 1931, Nr. 11, pp. 425-427.

## Wages and Hours in Palestine, 1930

THE following statistics on wages and hours in Palestine are from the Report and General Abstracts of the Census of Labor taken in 1930 by the departments of statistics of the Jewish Agency and the General Federation of Jewish Labor in Palestine. The census of rural employees was taken on February 24, and that of urban employees on March 3.

Table 1 gives the classified wage rates in various occupations:

TABLE 1.—CLASSIFIED DAILY WAGES IN SPECIFIED OCCUPATIONS IN PALESTINE, 1930

[Conversions into United States currency on basis of 100 mils=48.7 cents.]

Occupation	Number receiving—						Total number reporting
	Under 100 mils (\$0.49)	100 to 199 mils (\$0.49 to \$0.97)	200 to 299 mils (\$0.97 to \$1.46)	300 to 399 mils (\$1.46 to \$1.94)	400 to 499 mils (\$1.94 to \$2.43)	500 mils (\$2.43)	
MALES							
Agricultural workers in villages:							
Orange pickers and porters.....	5	159	275	1	1	1	442
Sorters and wrappers.....	1	33	62	13	2	1	112
Orange packers.....	1	15	37	20	9	15	97
Skilled orchard workers.....	1	34	162	8	1	2	208
Unskilled orchard workers.....	4	489	1,557	118	9	18	2,195
Other agricultural workers.....	1	84	230	10	4	6	335
Bakers.....	3	20	35	13	9	2	82
Confectionery makers.....		1	4	3			8
Tobacco-factory workers.....	1	36	5				42
Knitters.....	2	5	13	13	8		41
Tailors.....	14	34	53	28	1	4	134
Blacksmiths.....	25	8	10	15	5	4	67
Tinsmiths.....	2	9	19	15		2	47
Plumbers.....		5	36	39	27	13	120
Machinists.....	13	12	35	47	26	10	143
Locksmiths.....	31	99	115	108	39	23	415
Carpenters.....	22	25	53	93	40	24	257
Furniture makers.....	22	59	102	70	14	2	269
Shoemakers.....	12	73	70	19	3	3	180
Paper-box makers, etc.....		7	2	1			10
Building-material workers.....	1	29	47	26	6	4	113
Cement-factory workers.....		2	7	102	3		114
Marble-yard workers.....	1	12	35	15	2	5	70
Electricians.....	2	8	7	30	32	9	88
Stone dressers.....		24	67	66	21	3	181
Masons.....		3	52	159	88	46	348
Plasterers.....		5	19	55	42	22	143
Painters.....		9	25	50	30	12	126
Structural-iron workers.....			3	17	21	14	55
Concrete workers.....		2	23	72	25	16	138
Tile layers.....		9	29	12	1	6	57
Servants.....	1		4				5
Laundry workers.....		3	3	1			7
FEMALES							
Agricultural workers in villages:							
Orange pickers and porters.....		135	23				158
Sorters and wrappers.....		85	60	25			170
Orange packers.....		5	5	1			11
Skilled orchard workers.....		9	34				43
Unskilled orchard workers.....		120	117	4			241
Other agricultural workers.....		36	33				69
Bakers (towns and villages).....	1	20	2				23
Confectionery makers.....		56	2				58
Tobacco-factory workers.....	13	37	2				52
Knitters.....	1	75	18	1			95
Tailors.....	7	24	10				41
Seamstresses.....	23	53	42	5	1		124
Tinsmiths.....		3	1				4
Shoemakers.....		4					4
Paper-box makers, etc.....	30	91					121
Cement-factory workers.....			7				7
Marble-yard workers.....		1	1				2
Tile layers.....		1	1	3		1	6
Servants.....	28	46	46	1	1		122
Laundry workers.....	29	125	59	5			218



According to Table 2, more than half of 23,830 workers in Palestine at the time of the taking of the census in 1930 had an 8-hour day, while the working hours of 15 per cent were less than 8.

TABLE 2.—DAILY HOURS OF LABOR IN VARIOUS INDUSTRIES IN PALESTINE, 1930

Industry	Num- ber of workers	Per cent of persons working specified daily hours						
		Under 8	8	9	10	11	Over 11	Notre- ported
Agriculture.....	5,133	0.9	77.7	8.2	1.4	0.3	1.4	10.1
Manufacturing industries and crafts <sup>1</sup> .....	6,440	10.3	61.2	9.4	5.7	1.4	2.3	9.7
Construction.....	1,887	5.5	75.8	9.4	2.9	.4	.....	6.0
Transportation.....	1,492	3.8	51.9	9.3	7.2	1.0	11.9	14.9
Professional and clerical.....	5,450	34.7	27.2	8.4	7.1	4.1	4.8	13.7
Domestic service.....	3,231	16.3	25.4	12.1	11.5	6.7	16.6	11.4
Unspecified.....	197	2.5	11.7	.....	2.5	1.5	1.5	80.3
Total.....	23,830	15.0	51.8	8.8	5.4	2.1	4.9	12.0

<sup>1</sup> Includes food and kindred products, textiles, clothing, metal works, timber products, leather trades, printing and paper products, chemicals, stone, bricks, and cement, electricity and miscellaneous.

### Wages of Lumber Workers in Sweden, 1930-31

THE table following shows average daily wages of lumber workers in the northern area of Sweden during the winter of 1930-31.<sup>1</sup>

#### AVERAGE DAILY WAGES OF LUMBER WORKERS IN THE NORTHERN AREA OF SWEDEN, WINTER OF 1930-31

[Conversions on basis of Swedish crown=26.8 cents]

Forest district	Wood choppers and cutters		Teamsters	
	Crowns	United States currency	Crowns	United States currency
Bergslags.....	4.56	\$1.22	8.08	\$2.17
Stockholm—Gavle.....	4.88	1.31	8.44	2.26
Dalarnes.....	5.88	1.58	11.75	3.15
Mell. Norrlands.....	5.92	1.59	11.50	3.08
Harnosands.....	5.38	1.44	10.96	2.94
Umea.....	5.79	1.55	11.37	3.05
Skelleftea.....	6.05	1.62	11.50	3.08
Nedre Norrbottens.....	5.65	1.51	10.27	2.75
Ovre Norrbottens.....	5.65	1.51	11.29	3.03
Average.....	5.55	1.49	10.65	2.85

<sup>1</sup> Sweden. Statistiska Centralbyrån. Statistisk Årsbok, 1931, p. 253.

## TREND OF EMPLOYMENT

### Summary for September, 1931

**E**MPLOYMENT increased eight-tenths of 1 per cent in September, 1931, as compared with August, 1931, and pay-roll totals decreased 2.8 per cent. This decrease in earnings from August to September is partly due to the wide observance of the Labor Day holiday, which, falling in the pay period reported by many companies, materially affected the earnings of the employees in the reporting establishments.

The industrial groups surveyed, the number of establishments reporting in each group, the number of employees covered, and the total pay rolls for one week, for both August and September, together with the per cents of change in September, are shown in the following summary:

SUMMARY OF EMPLOYMENT AND PAY-ROLL TOTALS, AUGUST AND SEPTEMBER, 1931

Industrial group	Establishments reporting	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1931	September, 1931		August, 1931	September, 1931	
1. Manufacturing .....	16, 132	2, 964, 949	2, 949, 682	<sup>1</sup> -0.6	\$65, 454, 298	\$61, 672, 043	<sup>1</sup> -5.3
2. Coal mining .....	1, 490	280, 165	305, 819	+9.2	5, 452, 330	5, 977, 840	+9.6
Anthracite .....	160	92, 099	109, 390	+18.8	2, 239, 690	2, 575, 722	+15.0
Bituminous .....	1, 330	188, 066	196, 429	+4.4	3, 212, 640	3, 402, 118	+5.9
3. Metalliferous mining .....	263	36, 740	36, 504	-0.6	809, 556	806, 062	-0.4
4. Quarrying and nonmetallic mining .....	779	30, 461	29, 445	-3.3	644, 884	599, 573	-7.0
5. Crude petroleum producing .....	266	24, 022	23, 530	-2.0	800, 586	784, 465	-2.0
6. Public utilities .....	11, 844	682, 505	675, 376	-1.0	20, 629, 193	20, 428, 871	-1.0
Telephone and telegraph .....	8, 052	305, 164	302, 057	-1.0	8, 861, 564	8, 842, 368	-0.2
Power, light, and water .....	3, 292	236, 025	233, 301	-1.2	7, 397, 761	7, 250, 441	-2.0
Electric railroad operation and maintenance, exclusive of car shops .....	500	141, 316	140, 018	-0.9	4, 369, 868	4, 336, 062	-0.8
7. Trade .....	12, 928	359, 497	386, 885	+4.7	9, 214, 157	9, 483, 476	+2.9
Wholesale .....	2, 361	69, 974	69, 608	-0.5	2, 122, 593	2, 105, 517	-0.8
Retail .....	10, 567	299, 523	317, 277	+5.9	7, 091, 564	7, 377, 959	+4.0
8. Hotels .....	2, 175	149, 371	145, 762	-2.4	<sup>2</sup> 2, 311, 129	<sup>2</sup> 2, 258, 884	-2.3
9. Canning and preserving .....	960	84, 850	106, 915	+26.0	1, 135, 420	1, 403, 530	+23.6
10. Laundries .....	475	39, 412	39, 016	-1.0	720, 036	715, 618	-0.6
11. Dyeing and cleaning .....	209	7, 934	8, 084	+1.9	167, 721	173, 251	+3.3
<b>Total .....</b>	<b>47, 521</b>	<b>4, 669, 906</b>	<b>4, 707, 018</b>	<b>+0.8</b>	<b>107, 339, 310</b>	<b>104, 303, 613</b>	<b>-2.8</b>

<sup>1</sup> Weighted per cent of change for the combined 54 manufacturing industries, repeated from Table 2, p. 210, the remaining per cents of change, including total, are unweighted.

<sup>2</sup> Cash payments only; see note 4, p. 223.

## SUMMARY OF EMPLOYMENT AND PAY-ROLL TOTALS, AUGUST AND SEPTEMBER, 1931—Continued

## RECAPITULATION BY GEOGRAPHIC DIVISIONS

Industrial group	Estab- lish- ments report- ing	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1931	Septem- ber, 1931		August, 1931	Septem- ber, 1931	
GEOGRAPHIC DIVISION <sup>2</sup>							
New England.....	7, 957	545, 475	543, 823	+0.1	\$12, 482, 052	\$11, 935, 187	-4.4
Middle Atlantic.....	7, 786	1, 347, 728	1, 381, 682	+2.5	33, 126, 114	32, 918, 470	-0.6
East North Central.....	9, 875	1, 251, 215	1, 252, 833	+0.1	29, 744, 894	27, 866, 893	-6.3
West North Central.....	4, 884	299, 529	299, 190	-0.1	6, 979, 108	6, 854, 021	-1.8
South Atlantic.....	4, 853	490, 820	496, 143	+1.1	9, 000, 255	8, 937, 462	-0.7
East South Central.....	2, 289	194, 295	194, 054	-0.1	3, 127, 747	3, 061, 482	-2.1
West South Central.....	3, 035	170, 818	169, 464	-0.8	3, 842, 592	3, 810, 474	-0.8
Mountain.....	1, 763	88, 415	90, 817	+2.7	2, 129, 772	2, 163, 001	+1.6
Pacific.....	5, 079	283, 611	279, 012	-1.6	6, 906, 776	6, 756, 623	-2.2
All divisions.....	47, 521	4, 669, 906	4, 707, 018	+0.8	107, 339, 310	104, 303, 613	-2.8

<sup>3</sup> *New England:* Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. *Middle Atlantic:* New Jersey, New York, Pennsylvania. *East North Central:* Illinois, Indiana, Michigan, Ohio, Wisconsin. *West North Central:* Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. *South Atlantic:* Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia. *East South Central:* Alabama, Kentucky, Mississippi, Tennessee. *West South Central:* Arkansas, Louisiana, Oklahoma, Texas. *Mountain:* Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, Wyoming. *Pacific:* California, Oregon, Washington.

The per cents of change shown for the total figures represent only the changes in the establishments reporting, as the figures for the several industrial groups are not weighted according to the relative importance of each group.

Five of the 15 industrial groups surveyed reported increases in employment and pay-roll totals in September as compared with August. The anthracite mining industry reported a gain of 18.8 per cent in employment coupled with an increase of 15 per cent in earnings. The bituminous coal mining industry also reflected the increased seasonal production in the coal mining industry with an increase of 4.4 per cent in number of workers and 5.9 per cent in earnings. Retail trade establishments reported 5.9 per cent more employees in September than in August, with increased pay-roll totals of 4 per cent. The usual seasonal increase in the canning and preserving industry, which reaches its peak of employment in September, was shown by a gain of 26 per cent in employment and 23.6 per cent in earnings; and the dyeing and cleaning industrial group reported increases of 1.9 per cent and 3.3 per cent in the two items, respectively.

The remaining 10 industrial groups reported decreased employment and pay-roll totals, the greatest loss in both items being shown in quarrying and nonmetallic mining, which reported a decrease of 3.3 per cent in employment and 7 per cent in pay-roll totals. In 6 instances, the decreases in employment shown in these 10 industrial groups were 1 per cent or less.

Employment increased in five of the nine geographic divisions, the Mountain and the Middle Atlantic divisions reporting the greatest increases, 2.7 per cent and 2.5 per cent, respectively. The Mountain division alone of the nine geographic divisions reported increased earnings in September as compared with August. The remaining eight divisions reported decreased pay-roll totals, the East North



Central division reporting the greatest falling off, 6.3 per cent, over the month interval.

PER CAPITA WEEKLY EARNINGS IN SEPTEMBER, 1931, AND COMPARISON WITH AUGUST, 1931, AND SEPTEMBER, 1930

Industrial group	Per capita weekly earnings in September, 1931	Per cent of change September, 1931, compared with—	
		August, 1931	September, 1930
1. Manufacturing (54 industries).....	\$20.83	-4.8	-14.5
2. Coal mining:			
Anthracite.....	23.55	-3.2	-17.0
Bituminous.....	17.32	+1.4	-19.4
3. Metalliferous mining.....	22.08	+0.2	-19.4
4. Quarrying and nonmetallic mining.....	20.36	-3.8	-18.3
5. Crude petroleum producing.....	33.34	+(1)	-8.7
6. Public utilities:			
Telephone and telegraph.....	29.27	+0.8	+2.7
Power, light, and water.....	31.08	-0.8	-1.3
Electric railroads.....	30.97	+0.2	-1.9
7. Trade:			
Wholesale.....	30.25	-0.3	-4.3
Retail.....	23.25	-1.8	-4.0
8. Hotels (cash payments only) <sup>2</sup> .....	15.50	+0.2	-6.8
9. Canning and preserving.....	13.13	-1.9	-17.6
10. Laundries.....	18.34	+0.4	(3)
11. Dyeing and cleaning.....	21.43	+1.4	(3)
Total.....	22.16	-3.6	(3)

<sup>1</sup> Less than one-tenth of 1 per cent.

<sup>2</sup> The additional value of board, room, and tips can not be computed.

<sup>3</sup> Data not available.

Per capita earnings for September, 1931, given in the preceding table must not be confused with full-time weekly rates of wages; they are actual per capita weekly earnings computed by dividing the total number of employees reported into the total amount of pay roll in the week reported, and the "number of employees" includes all persons who worked any part of the period reported—that is, part-time workers as well as full-time workers.

Comparisons are made with per capita earnings in August, 1931, and with September, 1930, where data are available.

For convenient reference the latest data available relating to all employees, excluding executives and officials, on Class I railroads, drawn from Interstate Commerce Commission reports, are shown in the following statement. These reports are for the months of July and August, instead of for August and September, 1931. Consequently the figures can not be combined with those presented in the summary table.

EMPLOYMENT AND PAY-ROLL TOTALS, CLASS I RAILROADS

Industry	Number on pay roll		Per cent of change	Amount of pay roll in entire month		Per cent of change
	July 15, 1931	Aug. 15, 1931		July, 1931	August, 1931	
Class I railroads.....	1,294,392	1,272,739	-1.7	\$176,449,287	\$170,857,555	-3.2

The total number of employees included in this summary is 5,979,757 and their combined earnings in one week amount to approximately \$143,000,000.

### 1. Employment in Selected Manufacturing Industries in September, 1931

#### Comparison of Employment and Pay-Roll Totals in Manufacturing Industries, August and September, 1931

**E**MPLOYMENT in manufacturing industries in September, 1931, decreased 0.6 per cent as compared with August, and pay-roll totals decreased 5.3 per cent.

These changes are based upon returns from 13,750 identical establishments in 54 of the principal manufacturing industries in the United States, having in September 2,681,871 employees whose combined earnings in one week were \$55,874,557.

The bureau's weighted index of employment for September, 1931, is 69.6, as compared with 70.0 for August, 1931, 70.4 for July, 1931, and 79.7 for September, 1930; the index of pay-roll totals for September, 1931, is 55.4, as compared with 58.5 for August, 1931, 59.1 for July, 1931, and 74.2 for September, 1930.

Six of the 12 groups of manufacturing industries included in the bureau's indexes of employment and pay-roll totals reported gains in employment in September, as compared with August. The food group reported the largest increase in number of employees, 2.1 per cent. The chemical group reported an increase of 1.6 per cent; textiles, 0.9 per cent; the nonferrous metals and the tobacco products groups, 0.5 per cent each; and the group of miscellaneous industries, 0.3 per cent. In the remaining six groups reporting decreased employment, the leather group reported a decline of 2.8 per cent; lumber 2.1 per cent; and the vehicles group, 2 per cent. The iron and steel group reported 1.9 per cent fewer employees over the month interval; the stone, clay, and glass group, 1.5 per cent; and the paper and printing group, 0.9 per cent.

Twenty-four of the 54 manufacturing industries on which the bureau's indexes of employment and pay-roll totals are based reported more employees in September than in August. The greatest gain in employment, a seasonal one, was shown in the confectionery industry, which reported an increase of 21 per cent. The fertilizer industry reported an increase of 13.4 per cent in number of employees; rubber boots and shoes, 11.4 per cent; women's clothing, 6.6 per cent; silk goods, 6.4 per cent; and stoves, 6.3 per cent. The chemical industry showed a gain of 3.1 per cent in employment; shirts and collars, 3 per cent; millinery, 2.8 per cent; machine tools, 2.7 per cent; paper boxes, 2.5 per cent; and dyeing and finishing textiles, 2.2 per cent. The cotton goods industry reported 0.5 per cent more employees in September than in August, but pay-roll totals showed a falling off of 2.9 per cent.

The outstanding decreases in employment in these 54 industries from August to September were in the following industries: Carpets and rugs, 8.9 per cent; ice cream, 6.9 per cent; pianos, 6.6 per cent; lumber, millwork, 6.3 per cent; woolen and worsted goods, 6 per cent;

cast-iron pipe, 5.7 per cent; and cement, 5.1 per cent. The iron and steel industry reported a loss of 3.8 per cent in employment over the month interval and a decrease of 12.4 per cent in pay-roll totals. The automobile industry reported 2.5 per cent fewer employees coupled with a decrease of 17.5 per cent in earnings.

An additional group of 31 manufacturing industries, surveyed but not yet included in the bureau's indexes of employment and earnings, showed an increase of 1.2 per cent in employment and a decrease of 2.8 per cent in pay-roll totals. The percentage figures represent only the changes in the establishments reporting, as the industries composing this group are not weighted according to the relative importance in the group. Nineteen of these 31 additional manufacturing industries reported gains in employment over the previous month, and 11 industries showed increased earnings. The cottonseed oil, cake, and meal industry reported the greatest gain in employment, 38.3 per cent, and the radio manufacturing industry reported an increase of 15.1 per cent in number of employees. The following industries reported increased employment ranging from 6.7 per cent to 3.0 per cent: Men's furnishing goods, turpentine, clocks, jewelry, beet sugar, corsets, soap, and aircraft.

The Middle Atlantic and the South Atlantic geographic divisions reported increases in employment of 0.9 per cent and 0.2 per cent, respectively. The remaining geographic divisions reported a falling off in number of workers from August to September, the West South Central and the Mountain divisions reporting the greatest losses, 1.8 per cent each.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1931, BY INDUSTRIES

Industry	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1931	Septem- ber, 1931		August, 1931	September, 1931	
<b>Food and kindred products</b>	<b>1,990</b>	<b>218,385</b>	<b>223,616</b>	(1)	<b>\$5,380,074</b>	<b>\$5,427,852</b>	(1)
Slaughtering and meat packing	204	81,598	81,705	+0.1	2,063,730	2,034,966	-1.4
Confectionery	326	32,455	39,257	+21.0	554,547	682,653	+23.1
Ice cream	324	14,916	13,885	-6.9	469,507	441,717	-5.9
Flour	399	16,109	15,911	-1.2	402,865	388,496	-3.6
Baking	723	64,980	64,682	-0.5	1,651,120	1,648,654	-0.1
Sugar refining, cane	14	8,327	8,176	-1.8	238,305	231,366	-2.9
<b>Textiles and their products</b>	<b>2,406</b>	<b>551,598</b>	<b>554,886</b>	(1)	<b>9,478,770</b>	<b>9,158,134</b>	(1)
Cotton goods	502	180,516	187,466	+0.5	2,502,711	2,431,207	-2.9
Hosiery and knit goods	358	87,881	88,162	+0.3	1,352,284	1,355,690	+0.3
Silk goods	255	45,432	48,325	+6.4	843,490	847,637	+0.5
Woolen and worsted goods	188	60,139	56,560	-6.0	1,253,824	1,051,604	-16.1
Carpets and rugs	30	18,461	16,825	-8.9	375,722	334,929	-10.9
Dyeing and finishing tex- tiles	131	35,815	36,608	+2.2	834,382	825,183	-1.1
Clothing, men's	336	60,943	61,801	+1.4	1,213,247	1,105,528	-8.9
Shirts and collars	105	16,495	16,985	+3.0	222,380	221,975	-0.2
Clothing, women's	382	26,968	28,747	+6.6	606,005	702,634	+15.9
Millinery and lace goods	119	13,048	13,407	+2.8	274,725	281,747	+2.6
<b>Iron and steel and their products</b>	<b>1,943</b>	<b>488,745</b>	<b>478,547</b>	(1)	<b>10,270,280</b>	<b>9,354,966</b>	(1)
Iron and steel	195	206,572	198,765	-3.8	4,203,786	3,683,167	-12.4
Cast-iron pipe	41	9,144	8,622	-5.7	166,367	141,891	-14.7
Structural-iron work	175	23,904	22,983	-3.9	573,814	537,267	-6.4
Foundry and machine- shop products	1,059	168,694	166,617	-1.2	3,605,793	3,369,277	-6.6

See footnotes at end of table.



TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1931, BY INDUSTRIES—Continued

Industry	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1931	Septem- ber, 1931		August, 1931	September, 1931	
<b>Iron and steel and their products—Continued.</b>							
Hardware.....	95	24, 198	24, 021	-0.7	\$453, 864	\$404, 305	-10.9
Machine tools.....	145	17, 592	18, 066	+2.7	440, 762	398, 314	-9.6
Steam fittings and steam and hot-water heating apparatus.....	106	22, 895	22, 728	-0.7	493, 258	452, 163	-8.3
Stoves.....	127	15, 746	16, 745	+6.3	332, 636	368, 582	+10.8
<b>Lumber and its products</b> .....	<b>1, 442</b>	<b>158, 788</b>	<b>155, 932</b>	(1)	<b>2, 733, 805</b>	<b>2, 673, 085</b>	(1)
Lumber, sawmills.....	669	86, 028	83, 893	-2.5	1, 396, 301	1, 361, 631	-2.5
Lumber, millwork.....	338	23, 272	21, 809	-6.3	457, 880	407, 920	-10.9
Furniture.....	435	49, 488	50, 230	+1.5	879, 624	903, 534	+2.7
<b>Leather and its products</b> .....	<b>440</b>	<b>136, 351</b>	<b>132, 565</b>	(1)	<b>2, 736, 305</b>	<b>2, 453, 198</b>	(1)
Leather.....	141	25, 606	24, 765	-3.3	607, 457	566, 403	-6.8
Boots and shoes.....	299	110, 745	107, 800	-2.7	2, 128, 848	1, 886, 795	-11.4
<b>Paper and printing</b> .....	<b>1, 726</b>	<b>230, 369</b>	<b>228, 022</b>	(1)	<b>6, 806, 116</b>	<b>6, 610, 489</b>	(1)
Paper and pulp.....	385	80, 172	78, 470	-2.1	1, 811, 235	1, 673, 987	-7.6
Paper boxes.....	300	23, 108	23, 683	+2.5	486, 889	485, 566	-0.3
Printing, book and job.....	609	54, 552	53, 036	-2.8	1, 732, 811	1, 648, 370	-4.9
Printing, newspapers.....	432	72, 537	72, 833	+0.4	2, 775, 181	2, 802, 566	+1.0
<b>Chemicals and allied prod- ucts</b> .....	<b>473</b>	<b>87, 253</b>	<b>88, 020</b>	(1)	<b>2, 461, 528</b>	<b>2, 445, 989</b>	(1)
Chemicals.....	161	32, 447	33, 442	+3.1	851, 788	871, 971	+2.4
Fertilizers.....	211	6, 761	7, 668	+13.4	112, 845	121, 600	+7.8
Petroleum refining.....	101	48, 047	46, 910	-2.4	1, 496, 895	1, 452, 418	-3.0
<b>Stone, clay, and glass prod- ucts</b> .....	<b>1, 140</b>	<b>106, 085</b>	<b>104, 775</b>	(1)	<b>2, 208, 991</b>	<b>2, 122, 721</b>	(1)
Cement.....	115	18, 973	18, 005	-5.1	478, 882	437, 409	-8.7
Brick, tile, and terra cotta.....	720	28, 811	27, 705	-3.8	493, 594	468, 257	-5.1
Pottery.....	116	16, 472	16, 449	-0.1	310, 934	299, 072	-3.8
Glass.....	189	41, 829	42, 616	+1.9	925, 581	917, 983	-0.8
<b>Metal products, other than iron or steel</b> .....	<b>242</b>	<b>43, 455</b>	<b>43, 649</b>	(1)	<b>887, 143</b>	<b>859, 581</b>	(1)
Stamped and enameled ware.....	86	16, 537	16, 668	+0.8	322, 499	320, 109	-0.7
Brass, bronze, and copper products.....	156	26, 918	26, 981	+0.2	564, 644	539, 472	-4.5
<b>Tobacco products</b> .....	<b>212</b>	<b>57, 162</b>	<b>57, 390</b>	(1)	<b>840, 443</b>	<b>795, 343</b>	(1)
Chewing and smoking to- bacco and snuff.....	27	8, 425	8, 330	-1.1	131, 398	125, 644	-4.4
Cigars and cigarettes.....	185	48, 737	49, 060	+0.7	709, 045	669, 699	-5.5
<b>Vehicles for land transpor- tation</b> .....	<b>1, 251</b>	<b>373, 482</b>	<b>365, 356</b>	(1)	<b>9, 282, 061</b>	<b>8, 059, 046</b>	(1)
Automobiles.....	214	257, 403	250, 899	-2.5	6, 151, 427	5, 071, 963	-17.5
Carriages and wagons.....	43	673	661	-1.8	13, 935	13, 570	-2.6
Car building and repairing, electric-railroad.....	452	25, 733	25, 690	-0.2	749, 780	733, 523	-2.2
Car building and repairing, steam-railroad.....	542	89, 673	88, 106	-1.7	2, 366, 919	2, 239, 990	-5.4
<b>Miscellaneous industries</b> .....	<b>485</b>	<b>248, 615</b>	<b>240, 113</b>	(1)	<b>6, 403, 866</b>	<b>5, 914, 153</b>	(1)
Agricultural implements.....	79	8, 463	8, 387	-0.9	177, 857	171, 333	-3.7
Electric machinery, appa- ratus, and supplies.....	215	144, 238	144, 557	+0.2	3, 832, 147	3, 569, 879	-6.8
Pianos and organs.....	57	4, 256	3, 974	-6.6	93, 024	97, 756	+5.1
Rubber boots and shoes.....	9	11, 670	12, 999	+11.4	225, 991	248, 968	+10.2
Automobile tires and inner tubes.....	38	47, 772	46, 465	-2.9	1, 207, 974	1, 002, 107	-17.0
Shipbuilding.....	87	32, 216	32, 791	+1.8	866, 873	824, 110	-4.9
<b>Total—54 industries used in computing index numbers of employment and pay roll</b> .....	<b>13, 750</b>	<b>2, 706, 390</b>	<b>2, 681, 871</b>	(1)	<b>59, 489, 382</b>	<b>55, 874, 557</b>	(1)

See footnotes at end of table.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1931, BY INDUSTRIES—Continued

Industry	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1931	Septem- ber, 1931		August, 1931	September, 1931	
<b>Industries added since Feb- ruary, 1929, for which data for the index-base year (1926) are not available</b>	<b>2,382</b>	<b>264,559</b>	<b>267,811</b>	( <sup>2</sup> )	<b>\$5,964,916</b>	<b>\$5,797,486</b>	( <sup>2</sup> )
Aircraft	37	6,571	6,769	+3.0	209,395	212,386	+1.4
Aluminum manufactures	18	2,886	2,804	-2.8	65,652	64,343	-2.0
Beet sugar	48	4,325	4,509	+4.3	108,134	120,708	+11.6
Beverages	286	12,064	11,458	-5.3	370,048	342,744	-7.4
Bolts, nuts, washers, and rivets	66	8,440	7,941	-5.9	171,507	149,868	-12.6
Butter	165	3,884	3,887	+0.1	91,168	91,677	+0.6
Cash registers, adding ma- chines, and calculating machines	49	16,793	16,172	-3.7	457,049	386,505	-15.4
Clocks, time-recording de- vices, and clock move- ments	25	6,989	7,416	+6.1	134,406	146,422	+8.9
Corsets and allied garments	25	4,593	4,765	+3.7	76,057	74,453	-2.1
Cottonseed oil, cake, and meal	27	731	1,011	+38.3	12,024	15,446	+28.5
Cotton, small wares	92	8,360	8,309	-0.6	148,317	145,037	-2.2
Cutlery (not including sil- ver and plated cutlery) and edge tools	101	7,398	7,505	+1.4	142,145	134,015	-5.7
Forgings, iron and steel	28	3,186	3,253	+2.1	66,190	58,426	-11.7
Fur-felt hats	27	5,156	5,159	+0.1	106,998	110,461	+3.2
Gas and electric fixtures, lamps, lanterns, and re- flectors	53	6,122	6,122	( <sup>2</sup> )	150,030	149,022	-0.7
Jewelry	147	12,175	12,872	+5.7	252,422	274,860	+8.9
Marble, granite, slate, and other stone products	207	7,926	7,773	-1.9	209,625	202,965	-3.2
Men's furnishing goods	76	5,882	6,275	+6.7	90,650	92,553	+2.1
Paint and varnish	336	16,618	16,567	-0.3	438,216	427,729	-2.4
Plated ware	39	11,682	11,706	+0.2	244,577	256,207	+4.8
Plumbers' supplies	64	5,108	4,985	-2.4	108,172	96,430	-10.8
Radio	44	23,944	27,556	+15.1	546,885	561,450	+2.7
Rayon	19	25,916	25,092	-3.2	510,207	478,862	-6.1
Rubber goods, other than boots, shoes, tires, and inner tubes	83	18,331	18,460	+0.7	392,915	378,941	-3.6
Smelting and refining, cop- per, lead, and zinc	15	2,094	2,098	+0.2	43,624	43,295	-0.7
Soap	45	7,888	8,169	+3.6	211,730	207,182	-2.1
Tools (not including edge tools, machine tools, files, or saws)	124	7,732	7,909	+2.3	149,459	141,425	-5.4
Tin cans and other tinware	44	6,735	6,283	-6.7	149,117	143,191	-4.0
Turpentine and rosin	23	1,243	1,318	+6.0	20,695	21,072	+1.8
Typewriters and supplies	16	9,160	9,180	+0.2	178,335	169,618	-4.9
Wirework	53	4,597	4,488	-2.4	109,167	100,193	-8.2
<b>All industries</b>	<b>16,132</b>	<b>2,964,949</b>	<b>2,949,682</b>	( <sup>2</sup> )	<b>65,454,298</b>	<b>61,672,043</b>	( <sup>2</sup> )

## RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION <sup>4</sup>							
New England	2,009	386,967	385,052	-0.5	\$8,211,658	\$7,664,624	-6.7
Middle Atlantic	3,934	847,060	854,509	+0.9	20,118,129	19,497,123	-3.1
East North Central	3,876	907,780	895,214	-1.4	21,053,211	19,025,108	-9.6
West North Central	1,629	161,262	157,726	-2.2	3,679,644	3,496,923	-5.0
South Atlantic	1,881	336,829	337,545	+0.2	5,683,830	5,562,373	-2.1
East South Central	721	109,499	107,764	-1.6	1,728,484	1,623,241	-6.1
West South Central	831	81,972	80,468	-1.8	1,724,578	1,685,802	-2.2
Mountain	358	29,445	28,920	-1.8	743,355	703,790	-5.3
Pacific	893	104,135	102,484	-1.6	2,511,409	2,413,059	-3.9
<b>All divisions</b>	<b>16,132</b>	<b>2,964,949</b>	<b>2,949,682</b>	( <sup>2</sup> )	<b>65,454,298</b>	<b>61,672,043</b>	( <sup>2</sup> )

<sup>1</sup> The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

<sup>2</sup> The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting.

<sup>3</sup> No change

<sup>4</sup> See footnote 3, p. 204.

TABLE 2.—PER CENT OF CHANGE, AUGUST TO SEPTEMBER, 1931, 12 GROUPS OF MANUFACTURING INDUSTRIES AND TOTAL OF 54 INDUSTRIES

[Computed from the index numbers of each group, which are obtained by weighting the index numbers of the several industries of the group by the number of employees, or wages paid, in the industries]

Group	Per cent of change, August to Sep- tember, 1931		Group	Per cent of change, August to Sep- tember, 1931	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products.....	+2.1	+0.7	Metal products, other than iron and steel.....	+0.5	-3.5
Textiles and their products.....	+0.9	-2.8	Tobacco products.....	+0.5	-5.4
Iron and steel and their products.....	-1.9	-8.7	Vehicles for land transportation.....	-2.0	-11.0
Lumber and its products.....	-2.1	-2.5	Miscellaneous industries.....	+0.3	-7.5
Leather and its products.....	-2.8	-10.3			
Paper and printing.....	-0.9	-2.8			
Chemicals and allied products.....	+1.6	+0.1			
Stone, clay, and glass products.....	-1.5	-4.0	<b>Total, 54 industries.....</b>	<b>-0.6</b>	<b>-5.3</b>

#### Comparison of Employment and Pay-Roll Totals in Manufacturing Industries, September, 1931, with September, 1930

EMPLOYMENT in manufacturing industries in September, 1931, was 12.7 per cent below the level of September, 1930, and pay-roll totals were 25.3 per cent lower. Each of the 12 groups of manufacturing industries showed decreased employment and earnings over the year interval, the falling-off in earnings in each group being more pronounced than the employment decreases. The textile and leather groups reported the least change in employment and earnings, while the greatest decrease in the two items was shown in the iron and steel group.

Three of the 54 industries on which the bureau's indexes of employment and pay rolls are based had more employees at the end of the 12-month period than at the beginning. The woolen and worsted goods industry reported an increase of 4.2 per cent in number of employees over the corresponding month of the preceding year; the cotton goods industry reported an increase of 1.2 per cent; and the level of employment in the dyeing and finishing textiles was 0.6 per cent above the corresponding month of 1930.

The outstanding decrease in both employment and earnings in this year-to-year comparison was shown in the agricultural-implement industry, which reported 55.6 per cent fewer employees and a falling off of 58.6 per cent in pay-roll totals. The fertilizer industry reported a decrease of 40.6 per cent in employment over the year period; machine tools, 37.2 per cent; carriages and wagons, 32.3 per cent; pianos, 31.5 per cent; brick, 27.6 per cent; foundry and machine shops, 26.1 per cent; and cement and sawmills, 25 per cent each. The iron and steel industry had 17 per cent fewer employees, and the automobile industry showed a decline of 12.8 per cent in employment over the year interval.

Each of the nine geographic divisions reported decreased employment and pay-roll totals, the South Atlantic States showing the smallest decrease in employment, 6.9 per cent, and the West South Central States reporting the greatest loss in number of workers, 20.6 per cent.



TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, SEPTEMBER, 1931, WITH SEPTEMBER, 1930

[The per cents of change for each of the 12 groups of industries and for the total of all industries are weighted in the same manner as are the per cents of change in Table 2]

Industry	Per cent of change September, 1931, compared with September, 1930		Industry	Per cent of change September, 1931, compared with September, 1930	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
<b>Food and kindred products</b>	-5.8	-13.3	<b>Chemicals and allied products</b>	-18.4	-22.1
Slaughtering and meat packing	-6.4	-13.8	Chemicals	-9.3	-12.0
Confectionery	-1.9	-12.0	Fertilizers	-40.6	-49.0
Ice cream	-5.7	-11.0	Petroleum refining	-22.2	-27.1
Flour	-8.9	-17.5	<b>Stone, clay, and glass products</b>	-17.1	-30.2
Baking	-6.1	-12.6	Cement	-25.0	-35.8
Sugar refining, cane	-9.3	-16.5	Brick, tile, and terra cotta	-27.6	-46.0
<b>Textiles and their products</b>	-2.0	-11.7	Pottery	-8.2	-21.4
Cotton goods	+1.2	-3.4	Glass	-4.1	-12.4
Hosiery and knit goods	-3.0	-14.7	<b>Metal products, other than iron and steel</b>	-10.8	-24.0
Silk goods	-8.8	-15.7	Stamped and enameled ware	-4.3	-12.8
Woolen and worsted goods	+4.2	-6.9	Brass, bronze, and copper products	-13.7	-28.2
Carpets and rugs	-2.2	-4.7	<b>Tobacco products</b>	-9.4	-21.6
Dyeing and finishing textiles	+0.6	-4.1	Chewing and smoking tobacco and snuff	-7.0	-13.9
Clothing, men's	-1.8	-14.3	Cigars and cigarettes	-9.6	-22.5
Shirts and collars	-3.1	-9.9	<b>Vehicles for land transportation</b>	-17.7	-31.0
Clothing, women's	-10.5	-21.4	Automobiles	-12.8	-33.4
Millinery and lace goods	-7.1	-19.6	Carriages and wagons	-32.3	-34.3
<b>Iron and steel and their products</b>	-21.8	-41.0	Car building and repairing, electric-railroad	-15.3	-20.2
Iron and steel	-17.0	-42.3	Car building and repairing, steam-railroad	-22.5	-29.8
Cast-iron pipe	-20.6	-42.4	<b>Miscellaneous industries</b>	-19.1	-31.0
Structural-iron work	-23.8	-36.9	Agricultural implements	-55.6	-58.6
Foundry and machine-shop products	-26.1	-42.3	Electrical machinery, apparatus, and supplies	-19.1	-31.1
Hardware	-17.0	-34.7	Pianos and organs	-31.5	-38.1
Machine tools	-37.2	-46.9	Rubber boots and shoes	-4.4	-9.5
Steam fittings and steam and hot-water heating apparatus	-18.3	-36.2	Automobile tires	-8.3	-27.2
Stoves	-12.2	-23.9	Shipbuilding	-20.1	-30.6
<b>Lumber and its products</b>	-21.0	-33.9	<b>All industries</b>	-12.7	-25.3
Lumber, sawmills	-25.0	-38.8			
Lumber, millwork	-15.3	-29.9			
Furniture	-14.6	-27.3			
<b>Leather and its products</b>	-2.1	-11.1			
Leather	-7.8	-13.4			
Boots and shoes	-0.8	-10.5			
<b>Paper and printing</b>	-7.8	-14.8			
Paper and pulp	-9.7	-23.2			
Paper boxes	-8.3	-17.0			
Printing, book and job	-9.8	-17.9			
Printing, newspapers	-4.2	-6.9			

## RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION			GEOGRAPHIC DIVISION—contd.		
New England	-7.3	-18.9	West South Central	-20.6	-28.7
Middle Atlantic	-14.6	-27.0	Mountain	-15.3	-15.3
East North Central	-14.9	-30.3	Pacific	-17.0	-28.7
West North Central	-13.7	-22.0			
South Atlantic	-6.9	-16.4	<b>All divisions</b>	-12.7	-25.3
East South Central	-11.7	-24.7			

## Per Capita Earnings in Manufacturing Industries

ACTUAL per capita weekly earnings in September, 1931, for each of the 85 manufacturing industries surveyed by the Bureau of Labor Statistics, together with per cents of change in September, 1931, as compared with August, 1931, and September, 1930, are shown in Table 4.

Per capita earnings in September, 1931, for the combined 54 chief manufacturing industries of the United States, upon which the bureau's indexes of employment and pay rolls are based, were 4.8 per cent less than in August, 1931, and 14.5 per cent lower than for September, 1930.

The actual average per capita weekly earnings in September, 1931, for the 54 manufacturing industries were \$20.83; the average per capita earnings for all of the 85 manufacturing industries surveyed were \$20.91.

Per capita earnings given in Table 4 must not be confused with full-time weekly rates of wages. They are actual per capita weekly earnings, computed by dividing the total number of employees reported into the total amount of pay roll in the week reported, and the "number of employees" includes all persons who worked any part of the period reported—that is, part-time workers as well as full-time workers.

TABLE 4.—PER CAPITA WEEKLY EARNINGS IN MANUFACTURING INDUSTRIES IN SEPTEMBER, 1931, AND COMPARISON WITH AUGUST, 1931, AND SEPTEMBER, 1930

Industry	Per capita weekly earnings in September, 1931	Per cent of change, September, 1931, compared with—	
		August, 1931	September, 1930
Food and kindred products:			
Slaughtering and meat packing.....	\$24.91	-1.5	-7.9
Confectionery.....	17.39	+1.8	-10.2
Ice cream.....	31.81	+1.0	-5.9
Flour.....	24.42	-2.4	-9.6
Baking.....	25.49	+0.3	-7.1
Sugar refining, cane.....	28.30	-1.1	-7.8
Textiles and their products:			
Cotton goods.....	12.97	-3.4	-4.4
Hosiery and knit goods.....	15.38	-(1)	-12.0
Silk goods.....	17.54	-5.5	-7.5
Woolen and worsted goods.....	18.59	-10.8	-11.0
Carpets and rugs.....	19.91	-2.2	-2.8
Dyeing and finishing textiles.....	22.54	-3.3	-4.9
Clothing, men's.....	17.89	-10.1	-13.1
Shirts and collars.....	13.07	-3.0	-7.1
Clothing, women's.....	24.44	+8.8	-12.6
Millinery and lace goods.....	21.01	-0.2	-13.2
Iron and steel and their products:			
Iron and steel.....	18.53	-8.9	-30.4
Cast-iron pipe.....	16.46	-9.5	-27.6
Structural-iron work.....	23.38	-2.6	-17.2
Foundry and machine-shop products.....	20.22	-5.4	-22.1
Hardware.....	16.83	-10.3	-21.4
Machine tools.....	22.05	-12.0	-15.3
Steam fittings and steam and hot-water heating apparatus.....	19.89	-7.7	-22.1
Stoves.....	22.01	+4.2	-13.2
Lumber and its products:			
Lumber, sawmills.....	16.23	(2)	-18.3
Lumber, millwork.....	18.70	-5.0	-17.4
Furniture.....	17.99	+1.2	-15.1
Leather and its products:			
Leather.....	22.87	-3.6	-6.1
Boots and shoes.....	17.50	-8.9	-9.9
Paper and printing:			
Paper and pulp.....	21.33	-5.6	-15.0
Paper boxes.....	20.50	-2.7	-9.2
Printing, book and job.....	31.08	-2.1	-8.9
Printing, newspapers.....	38.48	+1.6	-2.7

<sup>1</sup> Less than one-tenth of 1 per cent.

<sup>2</sup> No change.

TABLE 4.—PER CAPITA WEEKLY EARNINGS IN MANUFACTURING INDUSTRIES IN SEPTEMBER, 1931, AND COMPARISON WITH AUGUST, 1931, AND SEPTEMBER, 1930—Continued

Industry	Per capita weekly earnings in September, 1931	Per cent of change, September, 1931, compared with—	
		August, 1931	September, 1930
Chemicals and allied products:			
Chemicals.....	\$26.07	-0.7	-2.9
Fertilizers.....	15.86	-5.0	-14.4
Petroleum refining.....	30.96	-0.6	-6.2
Stone, clay, and glass products:			
Cement.....	24.29	-3.8	-14.5
Brick, tile, and terra cotta.....	16.90	-1.3	-25.3
Pottery.....	18.18	-3.7	-14.4
Glass.....	21.54	-2.7	-8.4
Metal products other than iron and steel:			
Stamped and enameled ware.....	19.21	-1.5	-8.9
Brass, bronze, and copper products.....	19.99	-4.7	-17.0
Tobacco products:			
Chewing and smoking tobacco and snuff.....	15.08	-3.3	-7.3
Cigars and cigarettes.....	13.65	-6.2	-14.3
Vehicles for land transportation:			
Automobiles.....	20.22	-15.4	-23.9
Carriages and wagons.....	20.53	-0.9	-3.1
Car building and repairing, electric-railroad.....	28.55	-2.0	-5.7
Car building and repairing, steam-railroad.....	25.42	-3.7	-9.4
Miscellaneous industries:			
Agricultural implements.....	20.43	-2.8	-6.9
Electrical machinery, apparatus, and supplies.....	24.70	-7.0	-14.8
Pianos and organs.....	24.60	+12.5	-9.9
Rubber boots and shoes.....	19.15	-1.1	-5.4
Automobile tires and inner tubes.....	21.59	-14.6	-20.8
Shipbuilding.....	25.13	-6.6	-13.1
Industries added since February, 1929, for which data for the index base year (1926) are not available:			
Aircraft.....	31.38	-1.5	-2.2
Aluminum manufactures.....	22.95	+0.9	(3)
Beet sugar.....	26.77	+7.1	-10.8
Beverages.....	29.91	-2.3	-3.2
Bolts, nuts, washers, and rivets.....	18.87	-7.1	(3)
Butter.....	23.59	+0.5	(3)
Cash registers, adding machines, and calculating machines.....	23.90	-12.2	-16.0
Clocks, time-recording devices, and clock movements.....	19.74	+2.7	(3)
Corsets and allied garments.....	15.62	-5.7	(3)
Cottonseed oil, cake, and meal.....	15.28	-7.1	(3)
Cotton, small wares.....	17.46	-1.6	(3)
Cutlery (not including silver and plated cutlery) and edge tools.....	17.86	-7.0	(3)
Forgings, iron and steel.....	17.96	-13.6	(3)
Fur-felt hats.....	21.41	+3.2	(3)
Gas and electric fixtures, lamps, lanterns, and reflectors.....	24.34	-0.7	(3)
Jewelry.....	21.35	+3.0	-11.7
Marble, granite, slate, and other stone products.....	26.11	-1.3	(3)
Men's furnishing goods.....	14.75	-4.3	(3)
Paint and varnish.....	25.82	-2.1	-4.9
Plated ware.....	21.89	+4.5	(3)
Plumbers' supplies.....	19.34	-8.7	(3)
Radio.....	20.37	-10.8	-21.0
Rayon.....	19.08	-3.1	-0.1
Rubber goods, other than boots, shoes, tires, and inner tubes.....	20.53	-4.2	-11.9
Smelting and refining, copper, lead, and zinc.....	20.64	-0.9	(3)
Soap.....	25.36	-5.5	(3)
Tools (not including edge tools, machine tools, files, or saws).....	17.88	-7.5	(3)
Tin cans and other tinware.....	22.79	+2.9	(3)
Turpentine and rosin.....	15.99	-4.0	(3)
Typewriters and supplies.....	18.48	-5.1	(3)
Wirework.....	22.32	-6.0	(3)

(3) Data not available.

## Index Numbers of Employment and Pay-Roll Totals in Manufacturing Industries

TABLE 5 shows the general index of employment in manufacturing industries and the general index of pay-roll totals, by months, from January, 1923, to September, 1931, together with the average indexes of each of the years 1923 to 1930, inclusive.



Index numbers showing relatively the variation in number of persons employed and in pay-roll totals in each of the 54 manufacturing industries upon which the bureau's general indexes are based and in each of the 12 groups of industries, and also general indexes for the combined 12 groups of industries, are shown in Table 6 for September, 1930, and July, August, and September, 1931.

In computing the general indexes and the group indexes the index numbers of separate industries are weighted according to the relative importance of the industries.

TABLE 5.—GENERAL INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, 1923, TO SEPTEMBER, 1931

[Monthly average, 1926=100]

Month	Employment										Pay-roll totals									
	1923	1924	1925	1926	1927	1928	1929	1930	1931	1923	1924	1925	1926	1927	1928	1929	1930	1931		
Jan...	106.6	103.8	97.9	100.4	97.3	91.6	95.2	90.2	73.1	95.8	98.6	93.9	98.0	94.9	89.6	94.5	87.6	62.3		
Feb...	108.4	105.1	99.7	101.5	99.0	93.0	97.4	90.3	74.1	99.4	103.8	99.3	102.2	100.6	93.9	101.8	90.7	67.0		
Mar...	110.8	104.9	100.4	102.0	99.5	93.7	98.6	89.8	74.8	104.7	103.3	100.8	103.4	102.0	95.2	103.9	90.8	68.5		
Apr...	110.8	102.8	100.2	101.0	98.6	93.3	99.1	89.1	74.5	105.7	101.1	98.3	101.5	100.8	93.8	104.6	89.8	67.4		
May...	110.8	98.8	98.9	99.8	97.6	93.0	99.2	87.7	74.1	109.4	96.5	98.5	99.8	99.8	94.1	104.8	87.6	66.6		
June...	110.9	95.6	98.0	99.3	97.0	93.1	98.8	85.5	72.2	109.3	90.8	95.7	99.7	97.4	94.2	102.8	84.1	62.5		
July...	109.2	92.3	97.2	97.7	95.0	92.2	98.2	81.6	70.4	104.3	84.3	93.5	95.2	93.0	91.2	98.2	75.9	59.1		
Aug...	108.5	92.5	97.8	98.7	95.1	93.6	98.6	79.9	70.0	103.7	87.2	95.4	98.7	95.0	94.2	102.1	73.9	58.5		
Sept...	108.6	94.3	98.9	100.3	95.8	95.0	99.3	79.7	69.6	104.4	89.8	94.4	99.3	94.1	95.4	102.6	74.2	55.4		
Oct...	108.1	95.6	100.4	100.7	95.3	95.9	98.3	78.6	-----	106.8	92.4	100.4	102.9	95.2	99.0	102.3	72.7	-----		
Nov...	107.4	95.5	100.7	99.5	93.5	95.4	94.8	76.5	-----	105.4	91.4	100.4	99.6	91.6	96.1	95.1	68.3	-----		
Dec...	105.4	97.3	100.8	98.9	92.6	95.5	91.9	75.1	-----	103.2	95.7	101.6	99.8	93.2	97.7	92.0	67.4	-----		
Av...	108.8	98.2	99.2	100.0	96.4	93.8	97.5	83.7	72.5	104.3	94.6	97.7	100.0	96.5	94.5	100.4	80.3	63.0		

<sup>1</sup> Average for 9 months.

Following Table 6 are two charts which represent the 54 separate industries combined and show the course of pay-roll totals as well as the course of employment for each month of the years 1926 to 1930, and January to September, 1931, inclusive.

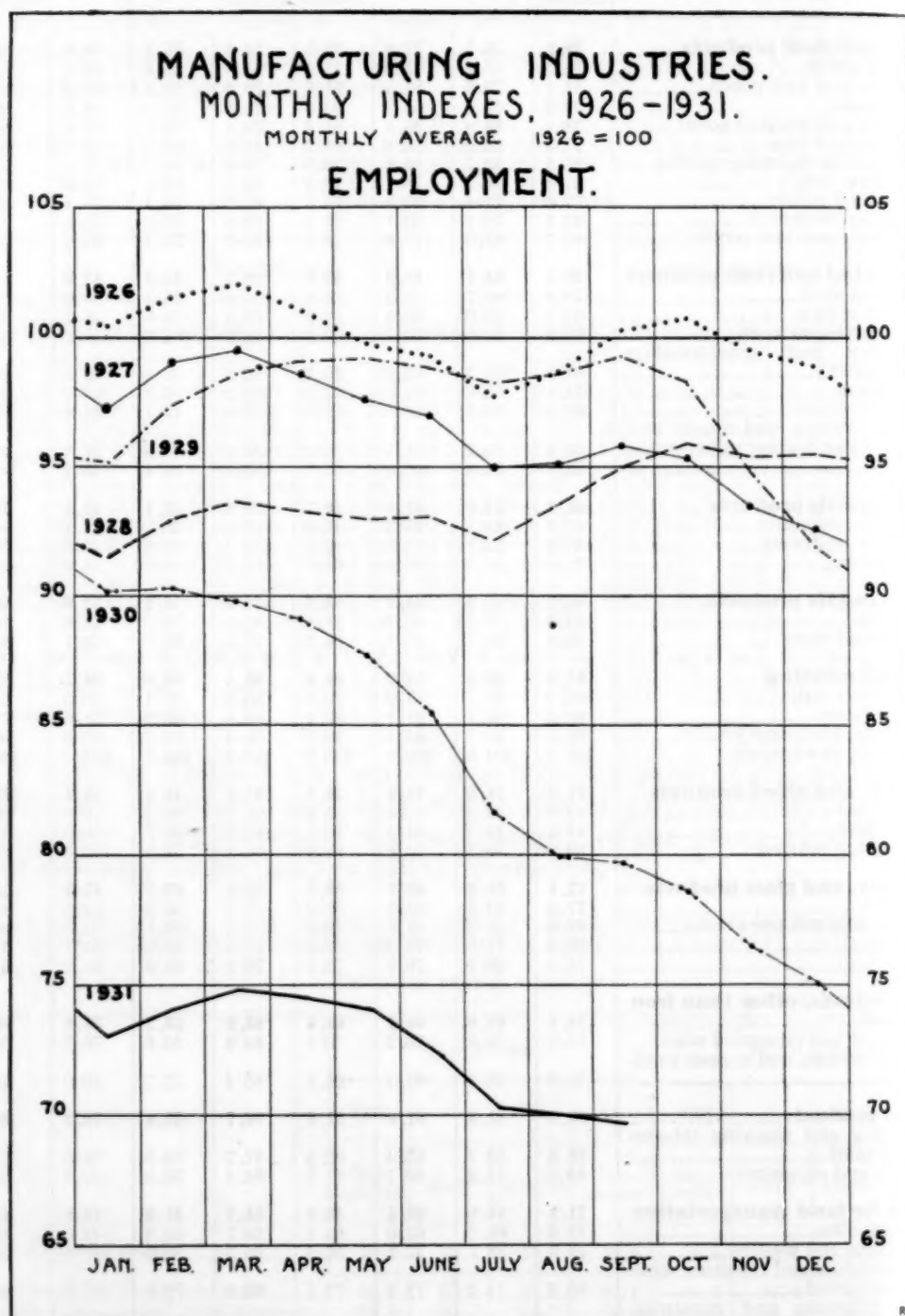
TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, SEPTEMBER, 1930, AND JULY, AUGUST, AND SEPTEMBER, 1931

[Monthly average, 1926=100]

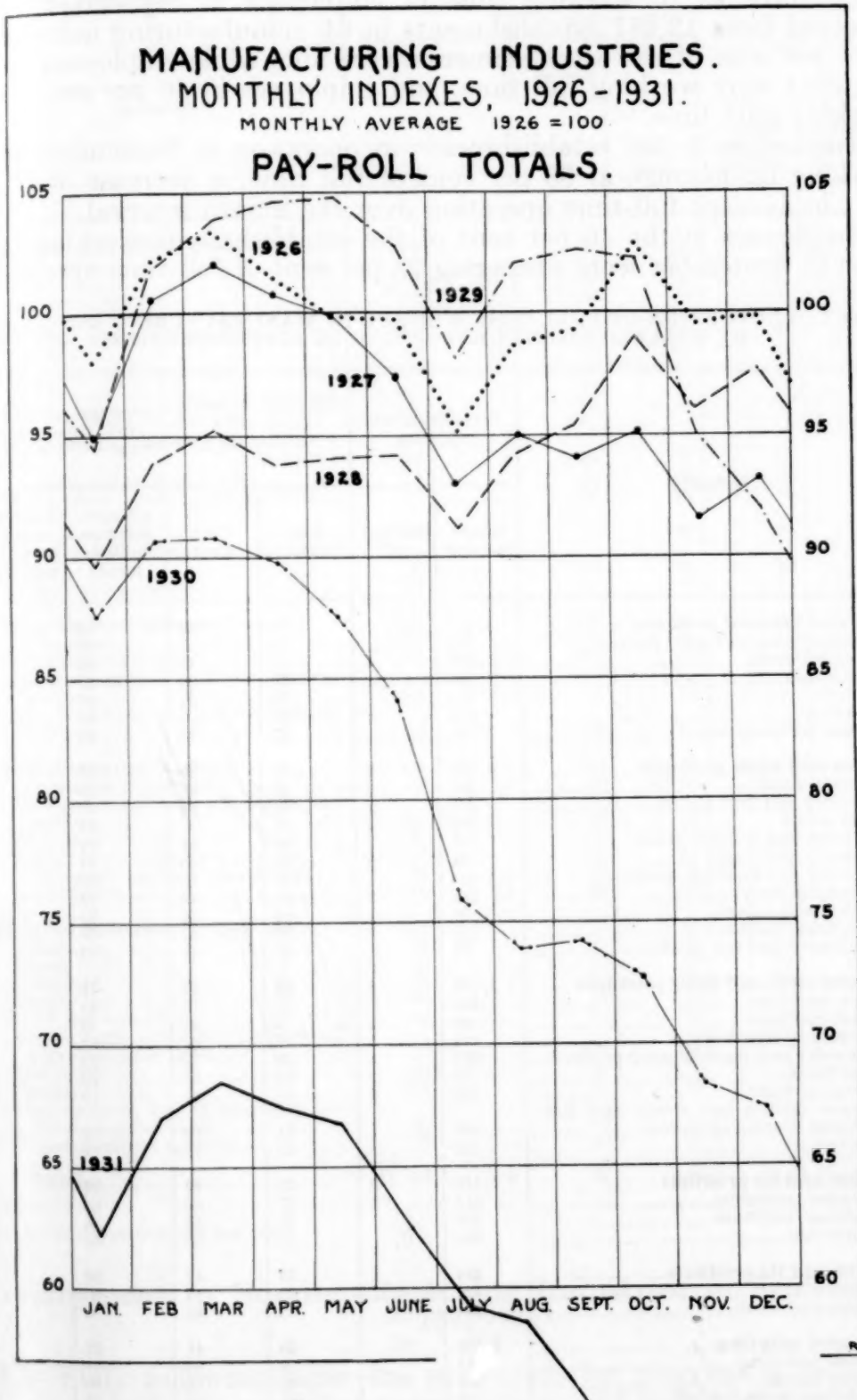
Industry	Employment				Pay-roll totals			
	1930	1931			1930	1931		
	Sep-tember	July	August	Sep-tember	Sep-tember	July	August	Sep-tember
General index.....	79.7	70.4	70.0	69.6	74.2	59.1	58.5	55.4
Food and kindred products.....	94.9	87.6	87.6	89.4	98.1	85.9	84.5	85.1
Slaughtering and meat packing.....	94.3	89.1	88.2	88.3	98.9	89.5	86.5	85.3
Confectionery.....	91.2	69.2	74.0	89.5	93.9	59.8	67.1	82.6
Ice cream.....	92.0	94.5	93.2	86.8	92.6	90.7	87.6	82.4
Flour.....	97.6	90.5	90.0	88.9	101.0	86.7	86.4	83.3
Baking.....	97.1	92.5	91.6	91.2	99.2	88.8	86.7	86.7
Sugar refining, cane.....	91.3	84.2	84.3	82.8	95.5	86.8	82.1	79.7

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, SEPTEMBER, 1930, AND JULY, AUGUST, AND SEPTEMBER, 1931—Con.

Industry	Employment				Pay-roll totals			
	1930	1931			1930	1931		
	Sep- tember	July	August	Sep- tember	Sep- tember	July	August	Sep- tember
<b>Textiles and their products</b> .....	<b>79.9</b>	<b>76.1</b>	<b>77.6</b>	<b>78.3</b>	<b>73.6</b>	<b>64.2</b>	<b>66.9</b>	<b>65.0</b>
Cotton goods.....	74.5	76.2	75.0	75.4	64.6	65.8	64.3	62.4
Hosiery and knit goods.....	84.1	79.9	81.3	81.6	79.0	64.4	67.2	67.4
Silk goods.....	76.2	63.6	65.3	69.5	70.2	55.6	58.9	59.2
Woolen and worsted goods.....	78.1	84.8	86.6	81.4	73.4	78.6	81.4	68.3
Carpets and rugs.....	71.3	75.2	76.6	69.7	55.2	60.4	59.0	52.6
Dyeing and finishing textiles.....	85.5	82.7	84.1	86.0	79.9	73.7	77.4	76.6
Clothing, men's.....	81.3	76.3	78.7	79.8	69.2	62.1	65.0	59.3
Shirts and collars.....	77.0	71.4	72.4	74.6	65.5	59.4	59.1	59.0
Clothing, women's.....	95.4	74.1	80.1	85.4	93.6	57.2	63.5	73.6
Millinery and lace goods.....	85.7	67.9	77.4	79.6	85.0	51.4	66.6	68.3
<b>Iron and steel and their products</b> .....	<b>79.4</b>	<b>65.1</b>	<b>63.3</b>	<b>62.1</b>	<b>69.7</b>	<b>47.3</b>	<b>45.0</b>	<b>41.1</b>
Iron and steel.....	79.0	69.7	68.2	65.6	70.0	48.3	46.2	40.4
Cast-iron pipe.....	67.1	58.0	56.5	53.3	65.5	48.6	44.2	37.7
Structural-iron work.....	91.0	71.9	72.1	69.3	85.7	61.0	57.8	54.1
Foundry and machine-shop products.....	81.3	63.3	60.9	60.1	70.5	46.5	43.5	40.7
Hardware.....	74.1	64.4	62.0	61.5	60.2	44.3	44.2	39.3
Machine tools.....	88.8	61.1	54.3	55.8	74.9	49.1	44.1	39.8
Steam fittings and steam and hot-water heating apparatus.....	62.4	53.2	51.4	51.0	53.8	38.5	37.4	34.3
Stoves.....	72.7	54.8	60.0	63.8	63.1	39.4	43.4	48.0
<b>Lumber and its products</b> .....	<b>64.2</b>	<b>52.0</b>	<b>51.8</b>	<b>50.7</b>	<b>59.8</b>	<b>41.1</b>	<b>40.5</b>	<b>39.5</b>
Lumber, sawmills.....	62.7	49.3	48.3	47.0	59.0	38.7	37.1	36.1
Lumber, millwork.....	58.2	53.1	52.6	49.3	55.2	44.6	43.5	38.7
Furniture.....	71.9	58.5	60.5	61.4	64.5	43.6	45.6	46.9
<b>Leather and its products</b> .....	<b>85.1</b>	<b>83.6</b>	<b>85.7</b>	<b>83.3</b>	<b>73.6</b>	<b>70.2</b>	<b>72.9</b>	<b>65.4</b>
Leather.....	84.1	79.2	80.1	77.5	81.5	74.2	75.7	70.6
Boots and shoes.....	85.4	84.7	87.1	84.7	71.4	69.0	72.1	63.9
<b>Paper and printing</b> .....	<b>95.9</b>	<b>89.5</b>	<b>89.2</b>	<b>88.4</b>	<b>98.5</b>	<b>86.8</b>	<b>86.3</b>	<b>83.9</b>
Paper and pulp.....	88.0	81.1	81.2	79.5	83.6	68.1	69.5	64.2
Paper boxes.....	90.6	80.1	81.1	83.1	93.6	76.9	78.0	77.7
Printing, book and job.....	95.3	88.1	88.4	86.0	98.4	85.2	85.0	80.8
Printing, newspapers.....	107.5	104.5	102.6	103.0	110.8	104.8	102.2	103.2
<b>Chemicals and allied products</b> .....	<b>91.0</b>	<b>74.5</b>	<b>73.1</b>	<b>74.3</b>	<b>92.2</b>	<b>74.1</b>	<b>71.7</b>	<b>71.8</b>
Chemicals.....	93.9	84.5	82.6	85.2	91.5	80.5	78.6	80.5
Fertilizers.....	84.4	41.3	44.2	50.1	86.3	40.7	40.8	44.0
Petroleum refining.....	89.9	73.7	71.6	69.9	93.8	73.8	70.5	68.4
<b>Stone, clay, and glass products</b> .....	<b>72.1</b>	<b>61.2</b>	<b>60.7</b>	<b>59.8</b>	<b>65.0</b>	<b>47.8</b>	<b>47.3</b>	<b>45.4</b>
Cement.....	77.6	64.5	61.3	58.2	75.1	56.3	52.8	48.2
Brick, tile, and terra cotta.....	64.8	50.9	48.8	46.9	57.0	34.6	32.5	30.8
Pottery.....	80.4	71.7	73.9	73.8	65.8	48.9	53.7	51.7
Glass.....	75.4	69.1	70.9	72.3	70.1	61.3	61.9	61.4
<b>Metal products, other than iron and steel</b> .....	<b>74.4</b>	<b>67.8</b>	<b>66.1</b>	<b>66.4</b>	<b>65.9</b>	<b>53.2</b>	<b>51.9</b>	<b>50.1</b>
Stamped and enameled ware.....	73.9	70.8	70.2	70.7	64.6	55.6	56.7	56.3
Brass, bronze, and copper products.....	74.6	66.3	64.2	64.4	66.4	52.2	50.0	47.7
<b>Tobacco products</b> .....	<b>89.8</b>	<b>81.3</b>	<b>81.0</b>	<b>81.4</b>	<b>84.7</b>	<b>71.4</b>	<b>70.2</b>	<b>66.4</b>
Chewing and smoking tobacco and snuff.....	88.6	80.7	83.3	82.4	87.2	76.8	78.5	75.1
Cigars and cigarettes.....	89.9	81.4	80.7	81.3	84.4	70.8	69.2	65.4
<b>Vehicles for land transportation</b> .....	<b>71.9</b>	<b>61.8</b>	<b>60.4</b>	<b>59.2</b>	<b>64.2</b>	<b>51.6</b>	<b>49.8</b>	<b>44.3</b>
Automobiles.....	75.0	68.8	67.0	65.4	60.7	51.8	49.0	40.4
Carriages and wagons.....	53.8	38.1	37.1	36.4	55.7	38.8	37.5	36.6
Car building and repairing, electric-railroad.....	85.5	74.2	72.5	72.4	83.2	70.8	67.9	66.4
Car building and repairing, steam-railroad.....	68.3	54.7	53.8	52.9	66.4	50.1	49.3	46.6
<b>Miscellaneous industries</b> .....	<b>88.0</b>	<b>73.6</b>	<b>71.0</b>	<b>71.2</b>	<b>83.8</b>	<b>63.1</b>	<b>62.5</b>	<b>57.8</b>
Agricultural implements.....	69.8	35.2	31.3	31.0	56.0	27.6	24.0	23.2
Electrical machinery, apparatus, and supplies.....	95.5	79.7	77.1	77.3	93.3	68.9	69.0	64.3
Pianos and organs.....	47.0	29.1	34.5	32.2	39.9	19.3	23.5	24.7
Rubber boots and shoes.....	72.7	67.0	62.4	69.5	63.1	51.1	51.8	57.1
Automobile tires and inner tubes.....	73.4	71.1	69.4	67.3	66.1	60.2	58.0	48.1
Shipbuilding.....	113.3	94.8	88.9	90.5	111.6	84.0	81.4	77.4







## Time Worked in Manufacturing Industries in September, 1931

REPORTS as to working time of employees in September were received from 12,481 establishments in 64 manufacturing industries. Two per cent of the establishments were idle, while employees in 52 per cent were working full time, and employees in 46 per cent were working part time.

Employees in the establishments in operation in September were working on average at 88 per cent of full time, a decrease of 1 per cent in average full-time operation over the month interval.

Employees in the 46 per cent of the establishments working part time in September were averaging 75 per cent of full-time operation.

TABLE 7.—PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN SEPTEMBER, 1931

Industry	Establishments reporting		Per cent of establishments in which employees worked—		Average per cent of full time reported by—	
	Total number	Per cent idle	Full time	Part time	All operating establishments	Establishments operating part time
<b>Food and kindred products</b> .....	<b>1,743</b>	<b>(1)</b>	<b>78</b>	<b>22</b>	<b>96</b>	<b>81</b>
Slaughtering and meat packing.....	168		73	27	97	88
Confectionery.....	279	1	57	42	92	82
Ice cream.....	246		70	30	95	83
Flour.....	364		79	21	95	73
Baking.....	674	1	90	9	99	84
Sugar refining, cane.....	12		67	33	93	80
<b>Textiles and their products</b> .....	<b>2,015</b>	<b>2</b>	<b>59</b>	<b>39</b>	<b>91</b>	<b>78</b>
Cotton goods.....	465	2	49	48	88	75
Hosiery and knit goods.....	311	2	56	43	90	78
Silk goods.....	239	3	69	27	94	79
Woolen and worsted goods.....	176	2	56	41	91	78
Carpets and rugs.....	24	4	33	63	87	79
Dyeing and finishing textiles.....	125	1	44	55	87	75
Clothing, men's.....	259	2	66	32	93	79
Shirts and collars.....	80	3	64	34	95	86
Clothing, women's.....	250	3	75	22	97	84
Millinery and lace goods.....	86	2	57	41	92	80
<b>Iron and steel and their products</b> .....	<b>1,725</b>	<b>1</b>	<b>22</b>	<b>77</b>	<b>74</b>	<b>67</b>
Iron and steel.....	138	7	22	70	75	67
Cast-iron pipe.....	40	5	5	90	59	57
Structural-iron work.....	166	1	32	67	85	79
Foundry and machine-shop products.....	961	1	23	77	73	65
Hardware.....	61	2	11	87	72	68
Machine tools.....	137	2	17	81	72	66
Steam fittings and steam and hot-water heating apparatus.....	100		11	89	69	66
Stoves.....	122		25	75	79	72
<b>Lumber and its products</b> .....	<b>1,147</b>	<b>2</b>	<b>38</b>	<b>60</b>	<b>83</b>	<b>72</b>
Lumber, sawmills.....	515	3	37	60	82	71
Lumber, millwork.....	298	(1)	35	65	83	75
Furniture.....	334	(1)	45	55	84	71
<b>Leather and its products</b> .....	<b>388</b>	<b>1</b>	<b>53</b>	<b>47</b>	<b>90</b>	<b>78</b>
Leather.....	124	1	55	44	90	78
Boots and shoes.....	264	(1)	52	48	90	79
<b>Paper and printing</b> .....	<b>1,520</b>	<b>(1)</b>	<b>58</b>	<b>41</b>	<b>92</b>	<b>80</b>
Paper and pulp.....	313	2	38	60	84	74
Paper boxes.....	264	(1)	42	58	89	80
Printing, book and job.....	556		56	44	92	82
Printing, newspapers.....	387		90	10	99	89

<sup>1</sup> Less than one-half of 1 per cent.

TABLE 7.—PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN SEPTEMBER, 1931—Continued

Industry	Establishments reporting		Per cent of establishments in which employees worked—		Average per cent of full time reported by—	
	Total number	Per cent idle	Full time	Part time	All operating establishments	Establishments operating part time
<b>Chemicals and allied products</b> .....	<b>354</b>	<b>2</b>	<b>68</b>	<b>30</b>	<b>94</b>	<b>80</b>
Chemicals.....	133	2	62	37	93	80
Fertilizers.....	154	4	62	34	93	79
Petroleum refining.....	67	—	94	6	99	89
<b>Stone, clay, and glass products</b> .....	<b>814</b>	<b>11</b>	<b>52</b>	<b>37</b>	<b>88</b>	<b>72</b>
Cement.....	80	14	76	10	97	74
Brick, tile, and terra cotta.....	498	13	46	41	86	70
Pottery.....	102	4	33	63	83	74
Glass.....	134	7	72	20	95	78
<b>Metal products, other than iron and steel</b> .....	<b>207</b>	—	<b>29</b>	<b>71</b>	<b>82</b>	<b>75</b>
Stamped and enameled ware.....	71	—	37	63	87	79
Brass, bronze, and copper products.....	136	—	26	74	80	73
<b>Tobacco products</b> .....	<b>202</b>	<b>2</b>	<b>29</b>	<b>69</b>	<b>85</b>	<b>79</b>
Chewing and smoking tobacco and snuff.....	26	—	54	46	90	79
Cigars and cigarettes.....	176	2	25	73	84	79
<b>Vehicles for land transportation</b> .....	<b>985</b>	<b>(1)</b>	<b>50</b>	<b>49</b>	<b>89</b>	<b>77</b>
Automobiles.....	178	1	31	67	78	67
Carriages and wagons.....	34	—	47	53	90	79
Car building and repairing, electric-railroad.....	350	—	75	25	97	87
Car building and repairing, steam-railroad.....	423	(1)	38	61	86	78
<b>Miscellaneous industries</b> .....	<b>416</b>	<b>1</b>	<b>33</b>	<b>66</b>	<b>85</b>	<b>78</b>
Agricultural implements.....	73	4	30	66	83	76
Electrical machinery, apparatus, and supplies.....	176	—	22	78	83	78
Pianos and organs.....	46	4	22	74	82	77
Rubber boots and shoes.....	8	—	50	50	92	84
Automobile tires and inner tubes.....	34	—	26	74	82	76
Shipbuilding.....	79	1	66	33	93	79
<b>Industries added in 1929 and 1930</b> .....	<b>965</b>	<b>(1)</b>	<b>67</b>	<b>33</b>	<b>93</b>	<b>78</b>
Radio.....	37	3	62	35	95	86
Rayon.....	12	—	50	50	91	83
Aircraft.....	35	3	74	23	94	75
Jewelry.....	134	—	43	57	86	75
Paint and varnish.....	313	—	63	37	92	79
Rubber goods, other than boots, shoes, tires, and inner tubes.....	77	—	52	48	90	79
Beet sugar.....	48	—	96	4	99	80
Beverages.....	258	—	86	14	97	76
Cash registers, adding machines, and calculating machines.....	39	—	69	31	93	79
Typewriters and supplies.....	12	—	33	67	80	70
<b>Total</b> .....	<b>12,481</b>	<b>2</b>	<b>52</b>	<b>46</b>	<b>88</b>	<b>75</b>

<sup>1</sup> Less than one-half of 1 per cent.

### Employment in Nonmanufacturing Industries in September, 1931

IN THE following table are presented, by geographic divisions, the data for 14 groups of nonmanufacturing industries, the totals for which also appear in the summary of employment and pay-roll totals, page 203.

Five of these industrial groups reported increased employment and earnings in September as compared with August. The canning and



preserving industry, which reached its peak of employment in September, reported a gain of 26 per cent in number of workers. The anthracite and bituminous coal mining industries, in preparation for seasonal demands, reported increases in employment of 18.8 per cent and 4.4 per cent, respectively, retail trade reported a gain of 5.9 per cent, and dyeing and cleaning establishments reported an increase of 1.9 per cent in employment in September. In the nine remaining industrial groups in which decreased employment and earnings were reported, the largest decrease in each item was shown in the quarrying and nonmetallic-mining group, which reported a decline of 3.3 per cent in employment coupled with a drop of 7 per cent in pay-roll total.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **NONMANUFACTURING** ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1931, BY INDUSTRIES

Geographic division	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1931	September, 1931		August, 1931	September, 1931	
Anthracite mining							
Middle Atlantic.....	160	92,099	109,390	+18.8	\$2,239,690	\$2,575,722	+15.0
Bituminous coal mining							
Middle Atlantic.....	393	55,301	55,436	+0.2	\$879,980	\$849,375	-3.5
East North Central.....	166	25,315	28,760	+13.6	492,932	559,931	+13.6
West North Central.....	49	3,502	3,933	+12.3	60,697	73,807	+21.6
South Atlantic.....	322	46,689	48,920	+4.8	869,714	901,946	+3.7
East South Central.....	241	41,689	42,484	+1.9	575,344	617,956	+7.4
West South Central.....	26	1,869	1,810	-3.2	30,527	31,842	+4.3
Mountain.....	121	12,138	13,515	+11.3	266,925	327,535	+22.7
Pacific.....	12	1,563	1,571	+0.5	36,521	39,726	+8.8
All divisions.....	1,330	188,066	196,429	+4.4	3,212,640	3,402,118	+5.9
Metalliferous mining							
Middle Atlantic.....	7	749	659	-12.0	\$14,266	\$13,041	-8.6
East North Central.....	43	9,907	10,006	+1.0	157,213	160,944	+2.4
West North Central.....	58	6,076	6,180	+1.7	150,797	153,453	+1.8
East South Central.....	11	2,260	2,214	-2.0	36,027	33,692	-6.5
West South Central.....	27	1,169	1,073	-8.2	19,857	19,724	-0.7
Mountain.....	90	14,425	14,188	-1.6	370,230	364,016	-1.7
Pacific.....	27	2,154	2,184	+1.4	61,166	61,192	+0.04
All divisions.....	263	36,740	36,504	-0.6	809,556	806,062	-0.4
Quarrying and nonmetallic mining							
New England.....	96	4,128	3,955	-4.2	\$103,058	\$91,832	-10.9
Middle Atlantic.....	121	6,866	6,569	-4.3	156,539	141,929	-9.3
East North Central.....	216	6,730	6,369	-5.4	160,228	144,156	-10.0
West North Central.....	94	1,878	1,814	-3.4	44,208	40,779	-7.8
South Atlantic.....	100	5,158	5,182	+0.5	78,979	83,074	+5.2
East South Central.....	59	2,496	2,390	-4.2	31,533	29,127	-7.6
West South Central.....	49	2,189	2,145	-2.0	41,584	41,371	-0.5
Mountain.....	6	80	80	(2)	2,047	2,032	-0.7
Pacific.....	38	936	941	+0.5	26,708	25,273	-5.4
All divisions.....	779	30,461	29,445	-3.3	644,884	599,573	-7.0

See footnotes at end of table.

## TREND OF EMPLOYMENT

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TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL NONMANUFACTURING ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1931, BY INDUSTRIES—Continued

Geographic division	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1931	September, 1931		August, 1931	September, 1931	
Crude petroleum producing							
Middle Atlantic.....	26	449	489	+8.9	\$12,052	\$13,068	+8.4
East North Central.....	19	304	290	-4.6	5,657	5,780	+2.2
West North Central.....	28	975	921	-5.5	24,253	22,857	-5.8
South Atlantic.....	8	362	381	+5.2	9,272	9,736	+5.0
East South Central.....	8	190	188	-1.1	4,172	4,040	-3.2
West South Central.....	126	15,791	15,908	+0.7	519,345	527,988	+1.7
Mountain.....	16	315	305	-3.2	9,772	9,794	+0.2
Pacific.....	35	5,636	5,048	-10.4	216,063	191,202	-11.5
All divisions.....	266	24,022	23,530	-2.0	800,586	784,465	-2.0
Telephone and telegraph							
New England.....	731	27,729	27,540	-0.7	\$873,368	\$875,939	+0.3
Middle Atlantic.....	1,277	97,495	96,507	-1.0	3,207,436	3,170,849	-1.1
East North Central.....	1,460	68,830	68,048	-1.1	1,873,640	1,866,661	-0.4
West North Central.....	1,300	28,106	27,701	-1.4	694,584	700,271	+0.8
South Atlantic.....	559	19,642	19,435	-1.1	538,419	542,809	+0.8
East South Central.....	654	9,828	9,701	-1.3	218,670	216,123	-1.2
West South Central.....	696	17,333	17,197	-0.8	397,127	396,612	-0.1
Mountain.....	506	6,977	6,919	-0.8	169,155	174,480	+3.1
Pacific.....	869	29,224	29,009	-0.7	889,165	898,624	+1.1
All divisions.....	8,052	305,164	302,057	-1.0	8,861,564	8,842,368	-0.2
Power, light, and water							
New England.....	251	22,148	21,863	-1.3	\$713,627	\$700,633	-1.8
Middle Atlantic.....	374	61,082	60,449	-1.0	2,019,907	1,986,173	-1.7
East North Central.....	398	55,208	54,614	-1.1	1,792,990	1,743,093	-2.8
West North Central.....	417	26,976	27,040	+0.2	784,149	779,920	-0.5
South Atlantic.....	280	21,569	21,391	-0.8	656,478	652,267	-0.6
East South Central.....	164	6,629	6,554	-1.1	167,515	161,296	-3.7
West South Central.....	545	16,493	16,085	-2.5	446,345	431,100	-3.4
Mountain.....	122	5,799	5,709	-1.6	180,000	171,140	-4.9
Pacific.....	741	20,121	19,596	-2.6	636,750	624,819	-1.9
All divisions.....	3,292	236,025	233,301	-1.2	7,397,761	7,250,441	-2.0
Electric railroads <sup>3</sup>							
New England.....	46	13,883	13,672	-1.5	\$496,526	\$487,016	-1.9
Middle Atlantic.....	151	36,721	36,747	+0.1	1,152,779	1,149,187	-0.3
East North Central.....	96	40,237	39,563	-1.7	1,261,365	1,254,234	-0.6
West North Central.....	53	13,426	13,297	-1.0	399,275	392,779	-1.6
South Atlantic.....	55	11,680	11,650	-0.3	320,674	317,366	-1.0
East South Central.....	13	2,702	2,612	-3.3	69,444	70,089	+0.9
West South Central.....	33	4,932	4,909	-0.5	130,801	128,434	-1.8
Mountain.....	15	2,014	2,010	-0.2	53,898	53,753	-0.3
Pacific.....	38	15,721	15,558	-1.0	485,106	483,204	-0.4
All divisions.....	500	141,316	140,018	-0.9	4,369,868	4,336,062	-0.8
Wholesale trade							
New England.....	612	14,866	14,851	-0.1	\$448,305	\$443,063	-1.2
Middle Atlantic.....	296	9,198	9,195	-(1)	302,937	298,496	-1.5
East North Central.....	294	11,490	11,548	+0.5	344,287	342,985	-0.4
West North Central.....	224	12,975	12,973	-(1)	375,457	376,386	+0.2
South Atlantic.....	206	3,707	3,678	-0.8	108,262	108,062	-0.2
East South Central.....	70	1,818	1,759	-3.2	47,592	46,498	-2.3
West South Central.....	299	5,630	5,446	-3.3	159,549	158,451	-0.7
Mountain.....	96	1,797	1,786	-0.6	59,555	58,804	-1.3
Pacific.....	264	8,493	8,372	-1.4	276,649	272,772	-1.4
All divisions.....	2,361	69,974	69,608	-0.5	2,122,593	2,105,517	-0.8

See footnotes at end of table.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL  
NONMANUFACTURING ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1931,  
BY INDUSTRIES—Continued

Geographic division	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1931	September, 1931		August, 1931	September, 1931	
Retail trade							
New England.....	3, 876	55, 146	56, 779	+3. 0	\$1, 343, 350	\$1, 354, 840	+0.9
Middle Atlantic.....	395	66, 805	75, 093	+12. 4	1, 756, 845	1, 920, 025	+9.3
East North Central.....	2, 511	73, 288	76, 420	+4. 3	1, 776, 048	1, 811, 571	+2.0
West North Central.....	588	19, 309	20, 768	+7. 6	416, 553	437, 913	+5.1
South Atlantic.....	1, 009	19, 258	20, 004	+3. 9	404, 883	412, 035	+1.8
East South Central.....	170	6, 975	7, 689	+10. 2	124, 993	136, 290	+9.0
West South Central.....	193	12, 216	12, 711	+4. 1	239, 111	253, 209	+5.9
Mountain.....	224	6, 032	6, 451	+6. 9	126, 948	131, 841	+3.9
Pacific.....	1, 601	40, 494	41, 362	+2. 1	902, 833	920, 235	+1.9
All divisions.....	10, 567	299, 523	317, 277	+5. 9	7, 091, 564	7, 377, 959	+4.0
Hotels <sup>4</sup>							
New England.....	179	12, 191	10, 663	-12. 5	\$178, 778	\$161, 536	-9.6
Middle Atlantic.....	440	48, 921	47, 547	-2. 8	800, 168	777, 451	-2.8
East North Central.....	401	29, 853	29, 275	-1. 9	480, 462	473, 674	-1.4
West North Central.....	282	13, 970	13, 925	-0. 3	187, 478	185, 334	-1.1
South Atlantic.....	192	11, 311	11, 239	-0. 6	158, 105	155, 769	-1.5
East South Central.....	95	5, 774	5, 788	+0. 2	66, 133	65, 547	-0.9
West South Central.....	144	8, 207	8, 364	+1. 9	102, 661	102, 823	+0.2
Mountain.....	108	3, 637	3, 582	-1. 5	61, 300	60, 204	-1.8
Pacific.....	334	15, 507	15, 379	-0. 8	276, 044	276, 546	+0.2
All divisions.....	2, 175	149, 371	145, 762	-2. 4	2, 311, 129	2, 258, 884	-2.1
Canning and preserving							
New England.....	84	2, 929	5, 927	+102. 4	\$40, 548	\$80, 945	+99.6
Middle Atlantic.....	95	12, 326	16, 261	+31. 9	206, 043	260, 933	+26.6
East North Central.....	278	14, 855	25, 400	+71. 0	203, 244	336, 245	+65.4
West North Central.....	76	5, 207	7, 051	+35. 4	58, 137	90, 595	+55.8
South Atlantic.....	144	7, 605	9, 896	+30. 1	60, 336	81, 466	+35.0
East South Central.....	38	1, 629	2, 167	+33. 0	19, 052	19, 393	+1.8
West South Central.....	32	1, 622	1, 970	+21. 5	9, 395	11, 424	+21.6
Mountain.....	56	3, 551	5, 131	+44. 5	46, 774	65, 723	+40.5
Pacific.....	157	35, 126	33, 112	-5. 7	491, 891	456, 806	-7.1
All divisions.....	960	84, 850	106, 915	+26. 0	1, 135, 420	1, 403, 530	+23.6
Laundries							
New England.....	54	2, 638	2, 642	+0. 2	\$53, 072	\$53, 829	+1.4
Middle Atlantic.....	91	11, 337	11, 384	+0. 4	227, 749	230, 643	+1.3
East North Central.....	89	5, 826	5, 733	-1. 6	109, 904	108, 856	-1.0
West North Central.....	59	5, 032	4, 975	-1. 1	85, 711	83, 901	-2.1
South Atlantic.....	56	5, 863	5, 638	-3. 8	90, 945	89, 033	-2.1
East South Central.....	29	2, 172	2, 139	-1. 5	28, 343	27, 846	-1.8
West South Central.....	17	999	980	-1. 9	14, 217	13, 971	-1.7
Mountain.....	24	1, 880	1, 885	+0. 3	32, 414	32, 143	-0.8
Pacific.....	56	3, 665	3, 640	-0. 7	77, 681	75, 396	-2.9
All divisions.....	475	39, 412	39, 016	-1. 0	720, 036	715, 618	-0.6

See footnotes at end of table.



TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL NONMANUFACTURING ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1931, BY INDUSTRIES—Continued

Geographic division	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1931	September, 1931		August, 1931	September, 1931	
		<i>Dyeing and cleaning</i>					
New England.....	19	850	871	+2.5	\$19,762	\$20,930	+5.9
Middle Atlantic.....	26	1,379	1,455	+5.5	31,594	34,455	+9.1
East North Central.....	28	1,592	1,593	+0.1	33,713	33,655	-0.2
West North Central.....	27	835	886	+6.1	18,165	19,103	+5.2
South Atlantic.....	41	1,147	1,184	+3.2	20,358	21,526	+5.7
East South Central.....	16	634	605	-4.6	10,445	10,344	-1.0
West South Central.....	17	396	398	+0.5	7,495	7,723	+3.0
Mountain.....	21	325	336	+3.4	7,399	7,746	+4.7
Pacific.....	14	776	756	-2.6	18,790	17,769	-5.4
<b>All divisions.....</b>	<b>209</b>	<b>7,934</b>	<b>8,084</b>	<b>+1.9</b>	<b>167,721</b>	<b>173,251</b>	<b>+3.3</b>

<sup>1</sup> Less than one-tenth of 1 per cent.

<sup>2</sup> No change.

<sup>3</sup> Not including electric-car building and repairing; see manufacturing industries, Table 1, p.—et seq.

<sup>4</sup> The amount of pay roll given represents cash payments only; the additional value of board, room, and tips can not be computed.

<sup>5</sup> Included in the total of 960 establishments reporting in September were 78 establishments which were closed in August but had resumed operation in September, and 10 establishments which were operating in August and reported a seasonal closing in September, 1931. There were also 56 additional canning establishments whose reports were not included in the total number of reporting establishments, as the plants had been seasonally closed for a period of 2 or more months.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN NONMANUFACTURING INDUSTRIES, SEPTEMBER, 1931, WITH SEPTEMBER, 1930

Industry	Per cent of change September, 1931, compared with September, 1930		Industry	Per cent of change September, 1931, compared with September, 1930	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Anthracite mining.....	-14.7	-29.1	Electric railroads.....	-8.5	-10.3
Bituminous coal mining.....	-11.2	-28.4	Wholesale trade.....	-9.2	-13.0
Metalliferous mining.....	-28.9	-42.8	Retail trade.....	-5.9	-9.6
Quarrying and nonmetallic mining.....	-24.1	-37.9	Hotels.....	-9.5	-15.7
Crude petroleum producing.....	-28.0	-34.3	Canning and preserving.....	-27.0	-39.8
Telephone and telegraph.....	-12.2	-9.9	Laundries.....	( <sup>1</sup> )	( <sup>1</sup> )
Power, light, and water.....	-10.0	-11.1	Dyeing and cleaning.....	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Data not available.

### Indexes of Employment and Pay-Roll Totals for Nonmanufacturing Industries

TABLE 3 shows the index numbers of employment and pay-roll totals for anthracite, bituminous coal, and metalliferous mining, quarrying, crude petroleum producing, telephone and telegraph, power, light, and water, electric railroads, wholesale and retail trade, hotels, and canning and preserving, by months, from January, 1930, to September, 1931, with the monthly average for 1929 as 100. Index numbers for the laundering and the dyeing and cleaning groups are not presented as data for the base year, 1929, are not available.

TABLE 3.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS FOR NONMANUFACTURING INDUSTRIES, JANUARY, 1930, TO SEPTEMBER, 1931  
[Monthly average, 1929=100]

Year and month	Anthracite mining		Bituminous coal mining		Metalliferous mining	Quarrying and non-metallic mining	Crude petroleum producing	Telephone light, and water	Power, light, and water	Operation and maintenance of electric railroads <sup>1</sup>	Wholesale trade	Retail trade	Hotels	Canning and pre-serving
	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals
<b>1930</b>														
January	102.1	105.8	102.5	101.4	92.7	71.9	92.7	101.6	105.1	99.6	99.7	97.1	100.4	100.3
February	106.9	121.5	102.4	102.1	92.3	73.5	90.8	100.2	101.9	98.8	100.4	95.1	102.4	103.8
March	82.6	78.5	98.6	86.4	90.9	80.0	89.3	99.4	105.8	99.7	99.7	94.4	102.4	104.4
April	84.1	75.0	94.4	81.7	89.3	85.4	86.8	98.9	103.4	100.7	102.6	95.2	100.1	100.3
May	93.8	98.8	90.4	77.5	87.5	85.6	89.8	99.7	103.2	103.4	104.5	95.2	98.4	98.4
June	90.8	94.3	88.4	75.6	84.6	81.6	90.2	99.8	103.4	104.6	107.8	94.8	98.0	98.0
July	91.6	84.0	88.0	68.9	80.5	71.9	89.9	100.0	106.6	105.9	106.7	95.3	101.3	99.8
August	80.2	78.8	89.2	71.1	79.0	89.3	85.8	98.8	102.5	106.4	106.6	92.9	101.5	98.6
September	93.8	91.6	90.5	74.9	78.1	69.9	87.7	96.8	102.2	105.2	106.1	91.8	100.1	97.1
October	99.0	117.2	91.8	79.4	77.2	68.6	84.7	94.5	100.9	104.8	105.6	91.0	97.5	95.5
November	97.2	98.0	92.5	79.1	72.8	66.8	83.6	93.0	97.9	103.4	103.7	88.3	95.2	93.6
December	99.1	100.0	92.5	77.7	70.1	59.9	77.4	91.6	101.3	103.2	106.3	88.8	93.5	91.5
<b>Average</b>	<b>93.4</b>	<b>95.3</b>	<b>93.4</b>	<b>81.3</b>	<b>83.2</b>	<b>78.0</b>	<b>87.4</b>	<b>97.9</b>	<b>102.9</b>	<b>93.4</b>	<b>93.5</b>	<b>95.9</b>	<b>99.2</b>	<b>98.5</b>
<b>1931</b>														
January	90.6	89.3	93.9	73.3	68.3	55.0	74.8	90.5	96.3	99.2	98.6	86.9	95.0	91.0
February	89.5	101.9	91.5	68.3	63.3	54.6	73.2	89.2	94.8	97.8	99.7	87.1	96.8	93.7
March	82.0	71.3	88.8	65.2	63.5	52.8	72.2	88.6	97.9	96.7	102.4	88.1	96.8	93.4
April	85.2	75.2	85.9	58.6	63.9	51.4	69.8	88.1	95.0	97.1	97.6	86.8	95.9	89.9
May	80.3	76.1	82.4	54.4	62.4	49.3	67.8	87.4	94.1	97.6	98.7	85.1	92.5	87.7
June	76.1	66.7	78.4	52.4	60.4	46.1	65.0	86.9	95.0	97.2	98.3	84.8	87.6	85.4
July	65.1	53.7	76.4	50.4	56.2	41.3	65.3	86.6	93.3	96.7	97.4	83.3	93.3	85.2
August	67.3	56.4	77.0	50.6	55.8	40.2	56.3	85.9	92.3	95.9	96.2	81.8	92.8	83.8
September	80.0	64.9	80.4	53.6	55.5	40.0	61.2	85.0	92.1	94.7	94.3	86.6	90.6	81.9

<sup>1</sup> Not including electric-railroad car building and repairing; see vehicles group, manufacturing industries, Table 1, p. 208 et seq.

## Employment in Building Construction in September, 1931

DATA for each of the 30 localities surveyed by the Bureau of Labor Statistics, together with similar information supplied by three cooperating State bureaus, which collect this information within their respective jurisdictions, appear in the following table. This table shows the number of identical firms reporting for both months, the number of employees, and the amount of earnings in one week in August and September, 1931, together with the per cents of change over the month period. The results of the compilation for the 30 localities surveyed by the Federal bureau are shown separately. However, to present as much available information as possible concerning the building-construction industry, a combined total of the two groups, together with the per cents of change occurring from August to September, is given at the end of the table.

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL FIRMS IN THE BUILDING-CONSTRUCTION INDUSTRY, AUGUST AND SEPTEMBER, 1931

Locality	Number of firms reporting	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1931	September, 1931		August, 1931	September, 1931	
Atlanta.....	121	1,549	1,758	+13.5	\$28,500	\$29,185	+2.4
Birmingham.....	76	1,072	920	-14.2	20,683	16,835	-18.6
Charlotte, N. C.....	37	868	891	+2.6	14,609	15,508	+6.2
Cincinnati <sup>1</sup> .....	398	3,532	3,496	-1.0	110,566	110,002	-0.5
Cleveland.....	417	5,482	5,195	-5.2	200,003	188,302	-5.9
Dallas.....	109	1,464	1,145	-21.8	36,167	26,273	-27.4
Denver.....	180	1,098	1,035	-5.7	32,995	32,010	-3.0
Des Moines.....	67	742	722	-2.7	21,412	18,892	-11.8
Detroit.....	373	5,562	5,101	-8.3	165,901	148,040	-10.8
Hartford.....	233	2,309	2,300	-0.4	74,027	75,352	+1.8
Indianapolis.....	173	2,122	1,914	-9.8	69,757	59,237	-15.1
Jacksonville.....	47	382	296	-22.5	8,093	5,894	-27.2
Kansas City <sup>2</sup> .....	175	1,931	2,231	+15.5	73,000	80,334	+10.0
Louisville.....	123	1,080	1,221	+13.1	24,440	26,634	+9.0
Memphis.....	93	750	852	+13.6	15,837	18,022	+13.8
Minneapolis.....	231	3,390	3,110	-8.3	98,853	83,519	-15.5
New Orleans.....	125	4,017	3,675	-8.5	76,439	73,204	-4.2
Oklahoma City.....	85	1,107	1,084	-2.1	34,237	28,983	-15.3
Omaha.....	105	1,210	1,064	-12.1	34,736	29,461	-15.2
Portland, Me.....	75	658	688	+4.6	19,307	21,743	+12.6
Portland, Oreg.....	177	1,485	1,450	-2.4	47,822	43,481	-9.1
Providence.....	215	2,512	2,539	+1.1	73,656	76,778	+4.2
Richmond.....	140	1,788	1,765	-1.3	42,390	41,717	-1.6
St. Louis.....	456	4,144	4,129	-0.4	142,232	141,138	-0.8
Salt Lake City.....	84	385	424	+10.1	10,057	9,338	-7.1
Seattle.....	172	2,087	1,787	-14.4	62,943	53,011	-15.8
Washington.....	449	11,111	10,923	-1.7	337,506	346,405	+2.6
Wheeling.....	54	359	326	-9.2	9,014	7,862	-12.8
Wichita.....	49	557	512	-8.1	11,905	10,214	-14.2
Wilmington, Del.....	101	1,784	1,742	-2.4	45,489	47,585	+4.6
Total, 30 cities.....	5,140	66,537	64,295	-3.4	1,942,576	1,864,959	-4.0
Baltimore, Md. <sup>3</sup> .....	70	1,818	1,608	-11.6	41,574	40,174	-3.4
Massachusetts <sup>3</sup> .....	<sup>4</sup> 645	9,324	9,326	+	310,081	310,502	+0.1
Wisconsin <sup>3</sup> .....	71	3,003	2,903	-3.3	74,249	72,132	-2.9
Total, 3 cooperating State bureaus.....	786	14,145	13,837	-2.2	425,904	422,808	-0.7
Total, all localities.....	5,926	80,682	78,132	-3.2	2,368,480	2,287,767	-3.4

<sup>1</sup> Includes Covington and Newport, Ky.

<sup>2</sup> Includes both Kansas City, Kans., and Kansas City, Mo.

<sup>3</sup> Data supplied by cooperating State bureau.

<sup>4</sup> Preliminary.

<sup>5</sup> Less than one-tenth of 1 per cent.



Data concerning the building-construction industry appearing in the foregoing table have not been included in the summary table shown at the beginning of this trend of employment article.

The several industrial groups in the summary table are not weighted according to their relative importance, and the bureau's monthly employment survey of the building-construction industry, while being steadily expanded, has not yet attained sufficient volume to represent its proper proportion in comparison with the other 15 industrial groups in the summary table.

### Employment on Class I Steam Railroads in the United States

THE monthly trend of employment from January, 1923, to August, 1931, on Class I railroads—that is, all roads having operating revenues of \$1,000,000 or over—is shown by the index numbers published in Table 1. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the monthly average for 1926 as 100.

TABLE 1.—INDEX OF EMPLOYMENT ON CLASS I STEAM RAILROADS IN THE UNITED STATES, JANUARY, 1923, TO AUGUST, 1931

[Monthly average, 1926=100]

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931
January.....	98.3	96.9	95.6	95.8	95.5	89.3	88.2	86.3	73.7
February.....	98.6	97.0	95.4	96.0	95.3	89.0	88.9	85.4	72.7
March.....	100.5	97.4	95.2	96.7	95.8	89.9	90.1	85.5	72.9
April.....	102.0	98.9	96.6	98.9	97.4	91.7	92.2	87.0	73.5
May.....	105.0	99.2	97.8	100.2	99.4	94.5	94.9	88.6	73.9
June.....	107.1	98.0	98.6	101.6	100.9	95.9	96.1	86.5	72.8
July.....	108.2	98.1	99.4	102.9	101.0	95.6	96.6	84.7	72.4
August.....	109.4	99.0	99.7	102.7	99.5	95.7	97.4	83.7	71.2
September.....	107.8	99.7	99.9	102.8	99.1	95.3	96.8	82.2	.....
October.....	107.3	100.8	100.7	103.4	98.9	95.3	96.9	80.4	.....
November.....	105.2	99.0	99.1	101.2	95.7	92.9	93.0	77.0	.....
December.....	99.4	96.0	97.1	98.2	91.9	89.7	88.8	74.9	.....
Average.....	104.1	98.3	97.9	100.0	97.5	92.9	93.3	83.5	<sup>1</sup> 72.9

<sup>1</sup> Average for 8 months.

Table 2 shows the total number of employees on the 15th day each of August, 1930, and July and August, 1931, and pay-roll totals for the entire months.

In these tabulations data for the occupational group reported as "Executives, officials, and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES, AUGUST, 1930, AND JULY AND AUGUST, 1931

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Occupation	Number of employees at middle of month			Total earnings		
	August, 1930	July, 1931	August, 1931	August, 1930	July, 1931	August 1931
Professional, clerical and general	249,931	222,232	220,245	\$36,951,757	\$32,981,199	\$32,355,982
Clerks	138,835	120,974	119,588	19,396,109	16,943,637	16,557,387
Stenographers and typists	23,070	20,667	20,576	3,031,083	2,738,562	2,686,308
Maintenance of way and structures	374,499	303,825	296,024	35,325,981	27,777,398	26,620,773
Laborers, extra gang and work train	54,200	37,325	33,809	4,149,142	2,612,727	2,229,296
Laborers, track and roadway section	195,626	160,927	157,933	14,158,051	11,019,169	10,554,588
Maintenance of equipment and stores	393,456	342,915	337,519	51,313,475	42,733,661	40,839,471
Carmen	83,406	71,148	69,839	12,253,171	9,956,413	9,506,407
Machinists	49,682	45,533	45,025	7,604,721	6,566,881	6,219,613
Skilled trades helpers	86,259	74,867	73,790	9,469,566	7,787,611	7,421,339
Laborers (shops, engine houses, power plants, and stores)	32,763	28,088	27,698	3,143,026	2,594,117	2,541,951
Common laborers (shops, engine houses, power plants, and stores)	43,358	36,962	36,395	3,306,961	2,703,310	2,561,413
Transportation, other than train, engine, and yard	178,521	160,563	158,639	22,865,171	20,505,796	20,073,674
Station agents	28,683	27,725	27,569	4,611,223	4,444,470	4,367,236
Telegraphers, telephoners, and towermen	21,487	19,491	19,417	3,411,655	3,081,037	3,039,232
Truckers (stations, warehouses, and platforms)	26,646	23,114	22,590	2,542,170	2,130,949	2,076,388
Crossing and bridge flagmen and gatemen	19,864	18,957	18,907	1,550,934	1,468,293	1,459,879
Transportation (yard masters, switch tenders, and hostlers)	20,103	17,553	17,548	4,017,071	3,430,951	3,376,658
Transportation, train and engine	281,362	247,304	242,764	57,354,877	49,020,282	47,590,997
Road conductors	32,036	28,250	27,765	7,839,611	6,846,815	6,617,017
Road brakemen and flagmen	61,821	54,745	53,596	10,948,905	9,339,305	8,986,809
Yard brakemen and yard helpers	47,129	41,199	40,943	8,208,096	6,843,683	6,712,018
Road engineers and motor men	38,083	33,453	32,805	10,434,712	9,023,482	8,741,962
Road firemen and helpers	38,757	34,406	33,664	7,613,228	6,536,824	6,324,677
All employees	1,497,872	1,294,392	1,272,739	207,828,332	176,449,287	170,857,555

## Changes in Employment and Pay Rolls in Various States

THE following data as to changes in employment and pay rolls have been compiled from reports received from the various State labor offices:

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES

## Monthly period

State, and industry group	Per cent of change, August to September, 1931		State, and industry group	Per cent of change, August to September, 1931	
	Employment	Pay roll		Employment	Pay roll
<b>Arkansas</b>			<b>Arkansas—Continued</b>		
Auto dealers, garages	-2.2	-4.4	Cooperage, heading, veneer	-7.8	-10.9
Auto bodies, wood parts	-65.1	-41.8	Cotton compresses, gins, and products	-17.5	+2.3
Bakeries and cafes	-1.9	+4.4	Coal mines	+17.7	+39.8
Beverages	-12.1	-15.3	Furniture manufactures	+1.9	+0.8
Brick and tile	-11.6	-16.2			
Candy and confections	+11.8	+15.9			

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—  
Continued

## Monthly period—Continued

State, and industry group	Per cent of change, August to September, 1931	
	Employment	Pay roll
<b>Arkansas—Continued</b>		
Flour, grain, feed, fertilizer.	-4.6	-9.1
Glass factories.	+1.1	+2.5
Handles, hubs, spokes.		+12.1
Hotels.	+3.8	-1.8
Laundries.	-5.9	-6.3
Lumber mills.	-3.1	-4.1
Machinery, foundries, parts, smelters.	-3.5	-.9
Newspapers and printers.	-.4	-3.7
Packing houses.	+6	+6
Petroleum products.	-4.0	-2.7
Sand, gravel, stone.	-48.8	-49.7
Textile mills, garment.	+2.5	+3.5
Public utilities.	-10.5	-16.6
Wholesale and retail.	-1.8	-3.7
Miscellaneous.	+13.8	-8.1
Contractors.	-.6	-41.5
All industries.	-5.1	-4.9
July to August, 1931		
<b>California</b>		
Stone, clay, and glass products.	-6.5	-5.6
Metals, machinery, and conveyances.	-2.4	-3.8
Furniture and fixtures.	+6	+3.5
Other wood manufactures.	-4.6	-.9
Leather and rubber goods.	-3.7	-5.8
Petroleum producing and refining.	-1.2	-2.9
Explosives, chemicals, paints, etc.	-.8	+1.8
Printing.	-2.8	-2.8
Publishing.	+3.5	+2.2
Other paper products.	+3.8	+10.6
Textiles.	-7.3	-7.8
Clothing, millinery, and laundering.	+5.8	+6.4
Foods, beverages, and to- bacco.	+46.8	+61.5
Motion pictures.	+9.3	+3.4
Miscellaneous.	-6.3	-13.3
All industries.	+12.0	+10.5
Public utilities.	-3.1	-4.2
Wholesale.	-.1	-.2
Retail.	+1.4	-.5
August to September, 1931		
<b>Illinois</b>		
Stone, clay, and glass products.	-12.8	-7.7
Metals, machinery, and conveyances.	-2.3	-6.8
Wood products.	+2.9	+7.0

State, and industry group	Per cent of change, August to September, 1931	
	Employment	Pay roll
<b>Illinois—Continued</b>		
Furs and leather goods.	-5.7	-16.7
Chemicals, oils, paints, etc.	+2.5	+5.8
Printing and paper goods.	-10.2	-16.8
Textiles.	-.9	+5.8
Clothing and millinery.	-1.1	-26.1
Foods, beverages, and to- bacco.	+1.2	+3.5
Miscellaneous.	+4.2	-6.9
All manufacturing.	-2.6	-6.7
Trade, wholesale and re- tail.	-2.9	-4.4
Services.	+0	+1.6
Public utilities.	-3.6	-4.5
Coal mining.	+36.3	+49.1
Building and contracting.	-7.7	-5.2
All nonmanufactur- ing.	-.9	-1.7
All industries.	-2.0	-4.6
<b>Iowa</b>		
Food and kindred products.	+0.9	
Textiles.	-9.9	
Iron and steel works.	-6.4	
Lumber products.	-.2	
Leather products.	-1.7	
Paper products, printing and publishing.	+6	
Patent medicines, chem- icals, and compounds.	+3.5	
Stone and clay products.	-5.7	
Tobacco and cigars.	-1.9	
Railway car shops.	-4.7	
Various industries.	-2.7	
All industries.	-2.5	
<b>Maryland</b>		
Food products.	+8	-1.1
Textiles.	-.7	-4.2
Iron and steel and their products.	-1.9	-7.3
Lumber and its products.	+4.8	+6.1
Leather and its products.	-1.7	-14.5
Rubber tires.	-1.4	-17.4
Paper and printing.	+1.1	+4
Chemicals and allied prod- ucts.	+3.1	+6
Stone, clay, and glass prod- ucts.	+11.6	+19.1
Metal products, other than iron and steel.	+3.4	+8
Tobacco products.	+7.3	+12.3
Transportation equipment.	-8.0	-4.6
Car building and repairing.	-4.9	-5.3
Miscellaneous.	+12.7	+19.7
All manufacturing.	-.4	-4.1



PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—  
Continued

## Monthly period—Continued

State, and industry group	Per cent of change, August to September, 1931		State, and industry group	Per cent of change, August to September, 1931	
	Employment	Pay roll		Employment	Pay roll
<b>Maryland—Continued</b>			<b>Michigan—Continued</b>		
Retail establishments.....	+0.6	-6.9	Stone, clay, and glass products.....	-10.6	-12.2
Wholesale establishments.....	-15.9	-2.6	Metal products, not iron and steel.....	-2.2	-13.4
Public utilities.....	-7	-2.9	Iron and steel products.....	-3	+2.1
Coal mines.....	-1.1	+12.2	Lumber and its products.....	+3.6	+1.0
Hotels.....	-2.0	+2.8	Leather and its products.....	-2	-5.8
Quarries.....	-3	+6.1	Food and kindred products.....	+3.0	-3
Building construction.....	-12.8	-3.8	Textiles and their products.....	-3.5	-7.1
Laundries.....	-2.3	-1.2	Tobacco products.....	-1.6	-12.7
Cleaning and dyeing establishments.....	+12.4	+10.5	Vehicles for land transportation.....	-1.0	-13.4
			Miscellaneous.....	+5.5	-3.0
	Employment—index numbers (1925-1927 = 100)		All industries.....	-7	-10.3
	August, 1931	September, 1931		July to August, 1931	
<b>Massachusetts</b>			<b>New Jersey</b>		
Boot and shoe cut stock and findings.....	91.3	88.4	Food and kindred products.....	+26.2	+11.8
Boots and shoes.....	71.5	70.8	Textiles and their products.....	+2.0	+5.8
Bread and other bakery products.....	99.6	98.9	Iron and steel and their products.....	-4.7	-6.1
Clothing, men's.....	59.4	65.3	Lumber and its products.....	-3	-4.0
Clothing, women's.....	84.2	92.5	Leather and its products.....	+4.1	+8.5
Confectionery.....	78.8	99.3	Tobacco products.....	+7.7	+3
Cotton goods.....	55.1	48.3	Paper and printing.....	-3.7	-1.9
Dyeing and finishing textiles.....	86.7	88.2	Chemicals and allied products.....	-6	+1.2
Electrical machinery, apparatus, and supplies.....	60.7	62.4	Stone, clay, and glass products.....	+2.2	+1.9
Foundry and machine-shop products.....	72.9	75.3	Metal products other than iron and steel.....	-4	+1.6
Furniture.....	67.6	73.5	Vehicles for land transportation.....	-2.5	-7.8
Hosiery and knit goods.....	71.1	77.3	Miscellaneous.....	+4	-1.5
Leather, tanned, curried, and finished.....	96.7	90.3	All industries.....	+7	-2
Paper and wood pulp.....	74.6	76.8		August to September, 1931	
Printing and publishing.....	90.9	92.4	<b>New York</b>		
Rubber footwear.....	68.1	68.5	Stone, clay, and glass.....	+0.7	-1.7
Rubber goods, tires, and tubes.....	55.3	55.8	Miscellaneous stone and minerals.....	+7	-3.5
Silk goods.....	47.9	50.4	Lime, cement, and plaster.....	-2.9	-6
Textile machinery and parts.....	63.5	63.3	Brick, tile, and pottery.....	+8.1	+2.4
Woolen and worsted goods.....	79.5	75.8	Glass.....	-3.9	-4.4
All industries.....	69.1	68.6	Metals and machinery.....	+1.5	-4
	Per cent of change, August to September, 1931		Silver and jewelry.....	+4.6	+24.2
	Employment	Pay roll	Brass, copper, and aluminum.....	-1	-2.9
<b>Michigan</b>			Iron and steel.....	-4	+1.8
Paper and printing.....	-4.1	-6.2	Structural and architectural iron.....	-7	+4.7
Chemicals and allied products.....	+7	+7.3	Sheet metal and hardware.....	-6	-6
			Firearms, tools, and cutlery.....	+1.2	-3.4

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—  
Continued

## Monthly period—Continued

State, and industry group	Per cent of change, August to September, 1931		State, and industry group	Per cent of change August to September, 1931	
	Employment	Pay roll		Employment	Pay roll
<b>New York—Continued</b>			<b>New York—Continued</b>		
Metals and machinery—Continued.			Food and tobacco—Con.		
Cooking, heating, and ventilating apparatus	+0.1	-0.7	Meat and dairy products	+1.4	+0.8
Machinery, including electrical apparatus	+3.9	(1)	Bakery products	+3.6	+5.5
Automobiles, carriages, and airplanes	-4	-2.4	Candy	+12.4	+25.9
Railroad equipment and repair	-3.2	-6.0	Beverages	+1	-6.2
Boat and ship building	+16.4	+23.9	Tobacco	+3.0	-2.2
Instruments and appliances	+3.1	-6	Water, light, and power	+4	-3
Wood manufactures	-1.1	+5	All industries	+3.0	+2.3
Saw and planing mills	-7.5	-12.7			
Furniture and cabinet-work	+3.3	+4.0	<b>Oklahoma</b>		
Pianos and other musical instruments	-10.4	+5.4	Food production:		
Miscellaneous wood	+4.6	+7.7	Confections	-16.6	-25.1
Furs, leather, and rubber goods	+2.7	+2.9	Flour mills	-3.9	-5.0
Leather	+8	-6	Ice, ice cream, and dairy products	-11.1	-14.8
Furs and fur goods	+13.0	+14.2	Meat and poultry	+1.8	-3.5
Shoes	-6	-2.6	Lead and zinc:		
Other leather and canvas goods	+10.4	+14.8	Mines and mills	-15.4	-16.9
Rubber and gutta-percha	+19.5	+30.7	Smelters	-3.1	-4.1
Pearl, horn, bone, etc.	+3.7	+4.4	Metals and machinery:		
Chemicals, oils, paints, etc.	+1.6	-3	Machine shops, etc.	-6.1	-14.2
Drugs and chemicals	+1.2	-2.0	Tank construction, etc.	-5.8	+8
Paints and colors	+1.1	+2	Oil industry:		
Oil products	+2.5	-1	Production, etc.	-3.4	-6.4
Miscellaneous chemicals	+1.1	+9	Refineries	+7	-3.9
Paper	-4	-8.3	Public utilities:		
Printing and paper goods	+1.4	+1.4	Steam railroad shops	-12.6	-14.8
Paper boxes and tubes	+9.9	+3.3	Street railways	-2.3	-3.2
Miscellaneous paper goods	+4.7	+1.2	Water, light, etc.	-3.5	-5.4
Printing and book-making	(1)	+1.3	Stone, clay, and glass:		
Textiles	-1.8	-9	Brick and tile	+10.2	-2.2
Silk and silk goods	+7	+1.6	Crushed stone, sand, and gravel	-13.7	-30.3
Wool manufactures	-8.4	-9.0	Glass manufacture	-1.2	+6.5
Cotton goods	+17.2	+30.3	Textiles and cleaning:		
Knit goods (excluding silk)	-2.7	-3.2	Textile manufacture	+1.3	+10.6
Other textiles	+2	+1.1	Laundries and cleaning	-4.1	-6.3
Clothing and millinery	+8.0	+9.7	Woodworking:		
Men's clothing	+5.1	-6.5	Sawmills	-5.4	-28.3
Men's furnishings	+1.9	+2	Millwork	+10.9	+8.1
Women's clothing	+17.2	+26.0			
Women's underwear	+13.6	+20.2	<b>Pennsylvania</b>		
Women's headwear	+10.3	+22.1	Metal products	-1.5	-7.3
Miscellaneous sewing	+6.0	+5.8	Transportation equipment	-2.4	+1.0
Laundering and cleaning	+1.8	+3.2	Textile products	+2.8	-2.5
Food and tobacco	+11.5	+10.3	Foods and tobacco	+2.5	+1.6
Flour, feed, and cereal	-1.8	-2.9	Stone, clay, and glass products	-1.2	-2.8
Canning and preserving	+74.5	+86.7	Lumber products	+7	+1.0
Other groceries	+3.8	+9.2	Chemical products	-2.7	-8.7
			Leather and rubber products	+1	-5.9
			Paper and printing	+1.0	+1.2
			All manufacturing	-3	-4.4
			<b>Texas</b>		
			Auto and body works	+1.1	
			Bakeries	+10.6	
			Confectioneries	+49.3	
			Pure food products	+16.9	

1 Change of less than one-tenth of 1 per cent.

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—  
Continued

Monthly period—Continued

State, and industry group	Per cent of change, August to September, 1931	
	Employment	Pay roll
<b>Texas—Continued</b>		
Ice-cream factories.....	-9.9	
Flour mills.....	-6.3	
Ice factories.....	-8.1	
Meat packing and slaughtering.....	+3.0	
Cotton-oil mills.....	+50.7	
Cotton compresses.....	+113.9	
Men's clothing manufacture.....	+2.6	
Women's clothing manufacture.....	-10.0	
Brick, tile, and terra cotta foundries and machine shops.....	-32.4	
Structural-iron works.....	-5	
Railroad-car shops.....	-11.0	
Electric-railway car shops.....	-3.9	
Petroleum refining.....	-4.2	
Sawmills.....	-1.2	
Lumber mills.....	+2	
Furniture manufacture.....	-2.1	
Paper-box manufacture.....	+3.0	
Cotton-textile mills.....	+5	
Cement plants.....	+8.3	
Commercial printing.....	-3.9	
Newspaper publishing.....	+4.5	
Quarrying.....	-4.8	
Public utilities.....	-1.7	
Retail stores.....	-5	
Wholesale stores.....	+3.5	
Hotels.....	-5.0	
Miscellaneous.....	-0.4	
All industries.....	-6.7	
July to August, 1931		
<b>Wisconsin</b>		
<i>Manual</i>		
Logging.....	+4.9	+10.0
Mining:		
Lead and zinc.....	+2.1	+12.0
Iron.....	+8	+9.8
Stone crushing and quarrying.....	+7.3	+37.8

State, and industry group	Per cent of change, July to August, 1931	
	Employment	Pay roll
<b>Wisconsin—Continued</b>		
<i>Manual—Continued</i>		
Manufacturing:		
Stone and allied industries.....	+1.7	+13.4
Metal.....	-3.3	-4.2
Wood.....	-3.2	-3.5
Rubber.....	+16.7	+21.3
Leather.....	+3.9	+18.6
Paper.....	-1.1	-7
Textiles.....	+2.3	+4.7
Foods (including canning and preserving).....	-9.9	-12.9
Printing and publishing.....	+1.0	+2.4
Chemicals (including soap, glue, and explosives).....	-3.4	-6.3
All manufacturing.....	-2.2	-1.3
Construction:		
Building.....	+2.5	+2.9
Highway.....	-5.3	-3.3
Railroad.....	-3.3	-4.3
Marine dredging, sewer digging.....	+4.3	+16.5
Communication:		
Steam railways.....	-1.6	+1
Electric railways.....	-4	.0
Express, telephone, telegraph.....	-2.6	-3.1
Light and power.....	-8	.9
Wholesale trade.....	+3	-1.0
Hotels and restaurants.....	-2.3	
Laundering and dyeing.....	-2.4	-9
<i>Nonmanual</i>		
Manufacturing, mines, and quarries.....	-1.3	-1.9
Construction.....	-2.3	-5.7
Communication.....	-6	-9
Wholesale trade.....	-5	-2
Retail trade—sales force only.....	-1.5	-1.8
Miscellaneous professional services.....	-1.3	+3.8



PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—  
Continued

Yearly period

State, and industry group	Per cent of change, August, 1930, to August, 1931		State, and industry group	Employment—index numbers (1925- 1927=100)	
	Employ- ment	Pay roll		September, 1930	September, 1931
<b>California</b>			<b>Massachusetts—Contd.</b>		
Stone, clay, and glass prod- ucts.....	-24.7	-30.3	Electrical machinery, ap- paratus, and supplies.....	75.5	62.4
Metals, machinery, and conveyances.....	-21.3	-27.6	Foundry and machine- shop products.....	98.7	75.3
Wood manufacture.....	-24.5	-32.3	Furniture.....	86.7	73.5
Leather and rubber goods.....	+4	-7.2	Hosiery and knit goods.....	77.9	77.3
Chemicals, oils, paints, etc.....	-24.5	-33.4	Leather, tanned, curried, and finished.....	99.3	90.3
Printing and paper goods.....	-10.4	-11.5	Paper and wood pulp.....	84.6	76.8
Textiles.....	-12.1	-23.7	Printing and publishing.....	101.7	92.4
Clothing, millinery, and laundrying.....	-4.8	-10.8	Rubber footwear.....	77.3	68.5
Foods, beverages, and to- bacco.....	-14.6	-31.0	Rubber goods, tires, and tubes.....	68.3	55.8
Miscellaneous <sup>2</sup> .....	-17.3	-32.4	Silk goods.....	59.0	50.4
All industries.....	-17.6	-28.4	Textile machinery and parts.....	62.4	63.3
Public utilities.....	-13.9	-16.7	Woolen and worsted goods.....	72.7	75.8
Wholesale and retail.....	-6.5	-4.6	All industries.....	76.2	68.6
Employment—index numbers (1925-1927 =100)			Per cent of change, September, 1930, to September, 1931		
September, 1930			September, 1931		
<b>Illinois</b>			<b>Michigan</b>		
Stone, clay, and glass prod- ucts.....	80.7	57.0	Paper and printing.....	-10.8	-18.1
Metals, machinery, and conveyances.....	82.2	62.7	Chemicals and allied prod- ucts.....	-11.7	-6.0
Wood products.....	58.8	45.3	Stone, clay, and glass products.....	-27.1	-37.6
Furs and leather goods.....	85.9	94.0	Metal products, not iron and steel.....	-8.8	-21.4
Chemicals, oils, paints, etc.....	87.3	79.6	Iron and steel products.....	-11.1	-28.9
Printing and paper goods.....	96.0	83.8	Lumber and its products.....	-19.6	-31.3
Textiles.....	81.4	81.3	Leather and its products.....	-11.9	-30.2
Clothing and millinery.....	75.6	70.3	Food and kindred prod- ucts.....	-5.7	-17.6
Foods, beverages, and tobacco.....	92.8	80.5	Textiles and their products.....	-9	-6.5
All manufacturing.....	82.9	68.3	Tobacco products.....	+3.7	-18.9
Trade, wholesale and retail.....	67.9	62.1	Vehicles for land trans- portation.....	-18.2	-37.3
Public utilities.....	100.2	87.7	Miscellaneous.....	-17.3	-36.7
Coal mining.....	80.3	74.0	All industries.....	-16.4	-33.9
Building and contracting.....	72.4	44.1	<b>New York</b>		
All industries.....	85.4	72.3	Stone, clay, and glass.....	-12.6	-21.1
<b>Massachusetts</b>			Miscellaneous stone and minerals.....	-14.9	-25.7
Boot and shoe cut stock and findings.....	94.1	88.4	Lime, cement, and plaster.....	-4.2	-10.1
Boots and shoes.....	83.5	70.8	Brick, tile, and pottery.....	-15.4	-31.9
Bread and other bakery products.....	105.5	98.9	Glass.....	-13.4	-14.6
Clothing, men's.....	69.0	65.3	Metals and machinery.....	-22.3	-34.4
Clothing, women's.....	97.8	92.5	Silver and jewelry.....	-17.9	-27.0
Confectionery.....	99.6	90.3	Brass, copper, and alu- minum.....	-27.0	-39.8
Cotton goods.....	49.9	48.3	Iron and steel.....	-9.2	-32.6
Dyeing and finishing tex- tiles.....	88.0	88.2	Structural and archi- tectural iron.....	-21.9	-25.5

<sup>2</sup> Includes motion pictures.

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—  
Continued

Yearly period—Continued

State, and industry group	Per cent of change, September, 1930, to September, 1931		State, and industry group	Per cent of change, September, 1930, to September, 1931.	
	Employment	Pay roll		Employment	Pay roll
<b>New York—Continued</b>			<b>New York—Continued</b>		
Metals and machinery—Continued.			Food and tobacco—Continued.		
Sheet metal and hardware.....	-15.6	-23.6	Canning and preserving.....	-17.3	-2.24
Firearms, tools, and cutlery.....	-30.2	-44.6	Other groceries.....	-13.4	-19.7
Cooking, heating, and ventilating apparatus.....	-13.4	-24.3	Meat and dairy products.....	-11.9	-17.1
Machinery, including electrical apparatus.....	-20.7	-36.8	Bakery products.....	-6.8	-9.4
Automobiles, carriages, and airplanes.....	-35.0	-44.2	Candy.....	+14.0	+8.0
Railroad equipment and repairs.....	-25.2	-31.0	Beverages.....	-8.3	-8.9
Boat and ship building.....	-31.1	-35.0	Tobacco.....	+8	-11.7
Instruments and appliances.....	-19.2	-30.8	Water, light, and power.....	-6.2	-4.9
Wood manufactures.....	-19.8	-28.7	All industries.....	-12.9	21.3
Saw and planing mills.....	-17.8	-25.8	<b>Pennsylvania</b>		
Furniture and cabinet work.....	-24.2	-35.8	Metal products.....	-24.4	-45.2
Pianos and other musical instruments.....	-33.5	-37.9	Transportation equipment.....	-35.4	-50.5
Miscellaneous wood.....	-4.1	-11.3	Textile products.....	-5.9	-15.3
Furs, leather, and rubber goods.....	-5.1	-9.1	Foods and tobacco.....	-2.9	-10.2
Leather.....	+5.8	+9.6	Stone, clay, and glass products.....	-14.5	-30.7
Furs and fur goods.....	-2.9	-20.9	Lumber products.....	-19.4	-17.5
Shoes.....	-1.0	+1.4	Chemical products.....	-7.1	-20.9
Other leather and canvas goods.....	-25.4	-37.8	Leather and rubber products.....	-3.3	-14.4
Rubber and gutta-percha.....	-15.4	-20.8	Paper and printing.....	-6.5	-15.3
Pearl, horn, bone, etc.....	+4.4	+4.9	All manufacturing.....	-16.9	-34.0
Chemicals, oils, paints, etc.....	-12.4	-17.7	<b>Texas</b>		
Drugs and chemicals.....	-10.1	-16.9	Auto and body works.....	-11.9	-----
Paints and colors.....	-10.3	-15.4	Bakeries.....	-8.6	-----
Oil products.....	-8.4	-12.7	Confectioneries.....	-21.4	-----
Miscellaneous chemicals.....	-17.8	-22.6	Pure food products.....	-32.5	-----
Paper.....	-8.6	-21.4	Ice-cream factories.....	-12.3	-----
Printing and paper goods.....	-9.3	-12.1	Flour mills.....	-13.9	-----
Paper boxes and tubes.....	-2.3	-13.5	Ice factories.....	-9.8	-----
Miscellaneous paper goods.....	-16.8	-20.1	Meat packing and slaughtering.....	-4.9	-----
Printing and book-making.....	-9.0	-11.2	Cotton-oil mills.....	-44.7	-----
Textiles.....	-4.9	-8.6	Cotton compresses.....	+32.0	-----
Silk and silk goods.....	-14.9	-23.2	Men's clothing manufacture.....	+4.9	-----
Wool manufactures.....	-1.8	-7	Women's clothing manufacture.....	-10.3	-----
Cotton goods.....	+31.8	+35.3	Brick, tile, and terra cotta.....	-43.7	-----
Knit goods (excluding silk).....	-5.4	-13.6	Foundries and machine shops.....	-59.8	-----
Other textiles.....	-12.9	-16.3	Structural-iron works.....	-40.1	-----
Clothing and millinery.....	-7.2	-16.5	Railroad-car shops.....	-6.3	-----
Men's clothing.....	-5.8	-12.9	Electric-railway car shops.....	-9.0	-----
Men's furnishings.....	-5.3	-16.8	Petroleum refining.....	-18.6	-----
Women's clothing.....	-14.3	-22.8	Sawmills.....	-20.0	-----
Women's underwear.....	+9	-9.7	Lumber mills.....	-8.9	-----
Women's headwear.....	-4.1	-14.9	Furniture manufacture.....	-12.4	-----
Miscellaneous sewing.....	-12.1	-15.9	Paper-box manufacture.....	-7.7	-----
Laundry and cleaning.....	-9	-3.4	Cotton-textile mills.....	-17.2	-----
Foods and tobacco.....	-7.3	-12.2	Cement plants.....	-15.7	-----
Flour, feed, and cereals.....	-2.9	-8.3	Commercial printing.....	+5.6	-----
			Newspaper publishing.....	-10.8	-----
			Quarrying.....	-9.9	-----
			Public utilities.....	-12.9	-----
			Retail stores.....	-5.8	-----
			Wholesale stores.....	-13.2	-----
			Hotels.....	-10.4	-----
			Miscellaneous.....	-19.0	-----
			All industries.....	-17.3	-----

# WHOLESALE AND RETAIL PRICES

## Retail Prices of Food in September, 1931

THE following tables are compiled from simple averages of the actual selling prices<sup>1</sup> received monthly by the Bureau of Labor Statistics from retail dealers.

Table 1 shows for the United States retail prices of food September 15, 1930, and August 15 and September 15, 1931, as well as the percentage changes in the year and in the month. For example, the retail price of 28-ounce package of wheat cereal was 25.4 cents on September 15, 1930; 24.0 cents on August 15, 1931; and 23.4 cents on September 15, 1931. These figures show decreases of 8 per cent in the year and 3 per cent in the month.

The cost of various articles of food combined shows a decrease of 18.1 per cent September 15, 1931, as compared with September 15, 1930, and a decrease of 0.3 per cent September 15, 1931, as compared with August 15, 1931.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE SEPTEMBER 15, 1931, COMPARED WITH AUGUST 15, 1931, AND SEPTEMBER 15, 1930.

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (—) Sept. 15, 1931, compared with—	
		Sept. 15, 1930	Aug. 15, 1931	Sept. 15, 1931	Sept. 15, 1930	Aug. 15, 1931
		<i>Cents</i>	<i>Cents</i>	<i>Cents</i>		
Sirloin steak.....	Pound.....	45.0	39.5	39.4	-12	-0.3
Round steak.....	do.....	39.7	34.6	34.4	-13	-1
Rib roast.....	do.....	33.0	28.5	28.3	-14	-1
Chuck roast.....	do.....	25.6	20.8	20.9	-18	+0.4
Plate beef.....	do.....	17.2	13.3	13.5	-22	+2
Pork chops.....	do.....	39.1	33.3	32.2	-18	-3
Bacon, sliced.....	do.....	42.7	36.6	36.2	-15	-1
Ham, sliced.....	do.....	53.5	43.1	45.6	-15	-1
Lamb, leg of.....	do.....	34.0	29.6	28.8	-15	-3
Hens.....	do.....	34.0	30.9	30.9	-9	0
Salmon, red, canned.....	do.....	33.5	32.9	31.3	-7	-5
Milk, fresh.....	Quart.....	14.0	12.1	12.1	-14	0
Milk, evaporated.....	16-oz. can.....	10.0	8.8	8.7	-13	-1
Butter.....	Pound.....	48.7	34.4	36.8	-24	+7
Oleomargarine (all butter substitutes).....	do.....	25.1	18.1	18.3	-27	+1
Cheese.....	do.....	34.2	26.5	27.0	-21	+2
Lard.....	do.....	17.5	12.8	12.6	-28	-2
Vegetable lard substitute.....	do.....	24.2	23.3	23.0	-5	-1
Eggs, strictly fresh.....	Dozen.....	43.1	31.9	33.8	-22	+6
Bread.....	Pound.....	8.7	7.4	7.3	-16	-1

<sup>1</sup> In addition to monthly retail prices of food and coal, the bureau publishes periodically the prices of gas and electricity for household use in each of 51 cities. At present this information is being collected in June and December of each year.



TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE SEPTEMBER 15, 1931, COMPARED WITH AUGUST 15, 1931, AND SEPTEMBER 15, 1930—Continued

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (—) Sept. 15, 1931, compared with—	
		Sept. 15, 1930	Aug. 15, 1931	Sept. 15, 1931	Sept. 15, 1930	Aug. 15, 1931
		<i>Cents</i>	<i>Cents</i>	<i>Cents</i>		
Flour.....	Pound.....	4.4	3.4	3.3	-25	-3
Corn meal.....	do.....	5.3	4.5	4.5	-15	0
Rolled oats.....	do.....	8.7	7.9	7.9	-9	0
Corn flakes.....	8-oz. pkg.....	9.4	8.8	8.9	-5	+1
Wheat cereal.....	28-oz. pkg.....	25.4	24.0	23.4	-8	-3
Macaroni.....	Pound.....	19.2	16.5	16.4	-15	-1
Rice.....	do.....	9.6	8.1	8.0	-17	-1
Beans, navy.....	do.....	11.7	7.8	7.6	-35	-3
Potatoes.....	do.....	3.2	2.2	2.0	-38	-9
Onions.....	do.....	4.7	4.3	4.3	-9	0
Cabbage.....	do.....	3.9	4.0	3.6	-8	-10
Pork and beans.....	No. 2 can.....	10.9	10.4	10.4	-5	0
Corn, canned.....	do.....	15.3	13.2	12.9	-16	-2
Peas, canned.....	do.....	16.1	13.9	13.8	-14	-1
Tomatoes, canned.....	do.....	12.3	10.0	9.9	-20	-1
Sugar.....	Pound.....	5.9	5.7	5.7	-3	0
Tea.....	do.....	77.3	75.4	75.8	-2	+1
Coffee.....	do.....	39.5	32.4	32.4	-18	0
Prunes.....	do.....	15.5	11.7	11.6	-25	-1
Raisins.....	do.....	11.9	11.2	11.3	-5	+1
Bananas.....	Dozen.....	29.7	24.1	23.9	-20	-1
Oranges.....	do.....	63.3	37.3	36.5	-42	-2
Weighted food index.....					-18.1	-0.3

Table 2 shows for the United States average retail prices of specified food articles on September 15, 1913, and on September 15 of each year from 1925 to 1931, together with percentage changes in September of each of these specified years compared with September, 1913. For example, the retail price per pound of corn meal was 3.1 cents in September, 1913; 5.4 cents in September, 1925; 5.1 cents in September, 1926; 5.2 cents in September, 1927; 5.3 cents in September, 1928, 1929, and 1930; and 4.5 cents in September, 1931.

As compared with September, 1913, these figures show increases of 74 per cent in September, 1925; 65 per cent in September, 1926; 68 per cent in September, 1927; 71 per cent in September, 1928, 1929, and 1930; and 45 per cent in 1931.

The cost of the various articles of food combined showed an increase of 16.5 per cent in September, 1931, as compared with September, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE SEPTEMBER 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH SEPTEMBER 15, 1913

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Average retail prices on Sept. 15—								Per cent of increase Sept. 15 of each specified year compared with Sept. 15, 1913						
	1913	1925	1926	1927	1928	1929	1930	1931	1925	1926	1927	1928	1929	1930	1931
Sirloin steak.....pound	Cts. 26.3	Cts. 41.6	Cts. 41.9	Cts. 43.8	Cts. 51.8	Cts. 51.5	Cts. 45.0	Cts. 39.4	58	59	67	97	96	71	50
Round steak.....do	23.2	35.6	36.4	38.1	45.8	46.1	39.7	34.4	53	57	64	97	99	71	48
Rib roast.....do	20.1	30.1	30.6	31.8	37.4	37.5	33.0	28.3	50	52	58	86	87	64	41
Chuck roast.....do	16.4	22.0	22.7	24.0	30.4	30.7	25.6	20.9	34	38	46	85	87	56	27
Plate beef.....do	12.3	13.9	14.5	15.5	20.6	21.2	17.2	13.5	13	18	26	67	72	40	10
Pork chops.....do	22.8	40.4	42.5	40.7	44.3	40.7	39.1	32.2	77	86	79	94	79	71	41
Bacon, sliced.....do	28.1	49.4	51.9	46.5	45.4	44.4	42.7	36.2	76	85	65	62	58	52	20
Ham, sliced.....do	28.1	54.9	60.4	53.8	56.0	56.4	53.5	45.6	95	115	91	99	101	90	62
Lamb, leg of.....do	18.7	38.5	39.1	38.5	40.3	39.5	34.0	28.8	106	109	106	116	111	82	54
Hens.....do	21.5	36.6	37.8	35.4	37.9	39.2	34.0	30.9	70	76	65	76	82	58	44
Salmon, red, canned															
.....pound		34.1	37.2	33.9	33.3	31.8	33.5	31.3							
Milk, fresh.....quart	8.9	14.2	14.0	14.1	14.2	14.3	14.0	12.1	60	57	58	60	61	57	36
Milk, evaporated															
.....16-ounce can		11.5	11.5	11.6	11.3	10.7	10.0	8.7							
Butter.....pound	37.7	55.8	52.5	53.4	57.6	54.8	48.7	36.8	48	39	42	53	45	29	12
Oleomargarine (all															
butter substitutes)															
.....pound		30.6	30.2	27.8	27.4	27.1	25.1	18.3							
Cheese.....do	22.1	37.0	36.1	37.7	38.7	38.0	34.2	27.0	67	63	71	75	72	55	22
Lard.....do	16.1	24.0	22.3	19.2	19.3	18.5	17.5	12.6	49	39	19	20	15	9	22
Vegetable lard substit-															
ute.....pound		25.9	25.9	25.1	24.9	24.7	24.2	23.0							
Eggs, strictly fresh															
.....dozen	37.7	51.9	51.5	48.7	50.4	53.0	43.1	33.8	38	37	29	34	41	14	10
Bread.....pound	5.6	9.4	9.4	9.3	9.1	9.0	8.7	7.3	68	68	66	63	61	55	30
Flour.....do	3.3	6.1	5.8	5.5	5.3	5.3	4.4	3.3	85	76	67	61	61	33	9
Corn meal.....do	3.1	5.4	5.1	5.2	5.3	5.3	4.5	4.5	74	65	68	71	71	71	45
Rolled oats.....do		9.2	9.1	9.0	9.0	8.9	8.7	7.9							
Corn flakes															
.....8-ounce package		11.0	10.9	9.7	9.5	9.5	9.4	8.9							
Wheat cereal															
.....28-ounce package		24.8	25.4	25.5	25.6	25.5	25.4	23.4							
Macaroni.....pound		20.4	20.2	20.1	19.8	19.6	19.2	16.4							
Rice.....do	8.7	11.3	11.7	10.6	10.0	9.7	9.6	8.0	30	34	22	15	11	10	8
Beans, navy.....do		10.2	9.1	9.6	12.7	14.5	11.7	7.6							
Potatoes.....do	1.9	3.6	3.9	3.2	2.2	3.9	3.2	2.0	89	105	68	16	105	68	5
Onions.....do		6.4	5.3	5.5	5.8	5.7	4.7	4.3							
Cabbage.....do		4.7	4.2	4.1	4.2	5.1	3.9	3.6							
Pork and beans															
.....No. 2 can		12.4	11.7	11.4	11.6	11.8	10.9	10.4							
Corn, canned.....do		18.1	16.4	15.6	15.9	15.8	15.3	12.9							
Peas, canned.....do		18.4	17.4	16.7	16.8	16.6	16.1	13.8							
Tomatoes, canned															
.....No. 2 can		13.5	11.8	11.9	11.6	12.9	12.3	9.9							
Sugar, granulated															
.....pound	5.7	7.0	7.0	7.2	7.0	6.7	5.9	5.7	23	23	26	23	18	4	0
Tea.....do	54.5	75.8	77.0	77.2	77.4	77.6	77.3	75.8	39	41	42	42	42	42	39
Coffee.....do	29.8	51.0	51.0	47.3	49.5	49.2	39.5	32.4	71	71	59	66	65	33	9
Prunes.....do		17.3	17.1	15.2	13.8	15.9	15.5	11.6							
Raisins.....do		14.4	14.8	14.3	13.0	12.0	11.9	11.3							
Bananas.....dozen		34.6	34.4	33.5	32.7	32.1	29.7	23.9							
Oranges.....do		61.0	50.7	55.3	66.1	44.2	63.3	36.5							
All articles combined <sup>2</sup>									55.2	54.7	50.3	53.8	57.0	42.2	16.5

<sup>1</sup> Decrease.<sup>2</sup> Beginning with January, 1921, index numbers showing the trend in the retail cost of food have been composed of the articles shown in Tables 1 and 2, weighted according to the consumption of the average family. From January, 1913, to December, 1920, the index numbers included the following articles: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

Table 3 shows the trend in the retail cost of three important groups of food commodities, viz, cereals, meats, and dairy products, by years, from 1913 to 1930, and by months for 1929, 1930, and 1931. The articles within these groups are as follows:

Cereals: Bread, flour, corn meal, rice, rolled oats, corn flakes, wheat cereal, and macaroni.

Meats: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, hens, and leg of lamb.

Dairy products: Butter, cheese, fresh milk, and evaporated milk.

TABLE 3.—INDEX NUMBERS OF RETAIL COST OF CEREALS, MEATS, AND DAIRY PRODUCTS FOR THE UNITED STATES, 1913 TO SEPTEMBER, 1931

[Average cost in 1913=100.0]

Year and month	Cereals	Meats	Dairy products	Year and month	Cereals	Meats	Dairy products
1913: Average for year....	100.0	100.0	100.0	1929—Continued.			
1914: Average for year....	106.7	103.4	97.1	November.....	163.6	184.1	147.0
1915: Average for year....	121.6	99.6	96.1	December.....	162.9	181.8	144.9
1916: Average for year....	126.8	108.2	103.2	1930: Average for year....	158.0	175.8	136.5
1917: Average for year....	186.5	137.0	127.6	January.....	162.9	183.6	138.9
1918: Average for year....	194.3	172.8	153.4	February.....	161.6	183.1	138.5
1919: Average for year....	198.0	184.2	176.6	March.....	160.9	183.0	137.6
1920: Average for year....	232.1	185.7	185.1	April.....	160.3	183.3	138.9
1921: Average for year....	179.8	158.1	149.5	May.....	159.8	181.5	137.0
1922: Average for year....	159.3	150.3	135.9	June.....	160.1	179.9	133.7
1923: Average for year....	156.9	149.0	147.6	July.....	158.6	175.2	133.9
1924: Average for year....	160.4	150.2	142.8	August.....	156.9	169.9	137.4
1925: Average for year....	176.2	163.0	147.1	September.....	156.4	173.3	138.8
1926: Average for year....	175.5	171.3	145.5	October.....	154.4	171.1	137.8
1927: Average for year....	170.7	169.9	148.7	November.....	152.4	164.0	135.3
1928: Average for year....	167.2	179.2	150.0	December.....	151.6	161.6	129.8
1929: Average for year....	164.1	188.4	148.6	1931:			
January.....	164.1	180.9	151.9	January.....	147.1	159.5	123.6
February.....	164.1	180.3	152.6	February.....	144.6	153.4	120.2
March.....	164.1	182.8	152.4	March.....	142.4	152.5	120.5
April.....	164.1	187.5	148.9	April.....	138.9	151.4	116.5
May.....	163.5	191.2	147.5	May.....	137.7	149.3	110.3
June.....	163.0	192.4	146.8	June.....	136.3	145.7	108.3
July.....	163.5	195.9	146.8	July.....	134.3	147.8	109.6
August.....	164.7	196.0	147.1	August.....	132.0	149.1	111.9
September.....	165.2	194.2	148.1	September.....	130.2	147.7	114.3
October.....	163.5	189.2	149.3				

#### Index Numbers of Retail Prices of Food in the United States

IN TABLE 4 index numbers are given which show the changes in the retail prices of specified food articles, by years, for 1913 and 1920 to 1930,<sup>2</sup> by months for 1930 and 1931. These index numbers, or relative prices, are based on the year 1913 as 100.0 and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of sirloin steak for the year 1930 was 182.7, which means that the average money price for the year 1930 was 82.7 cent per higher than the average money price for the year 1913. As compared with the relative price, 196.9 in 1929, the figures for 1930 show a decrease of 14.2 points, but a decrease of 7.2 per cent in the year.

In the last column of Table 4 are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Tables 1 and 2, weighted according to the average family consumption in 1918. (See March, 1921, issue, p. 25.) Although previous to January, 1921, the number of food articles varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index numbers based on the average for the year 1913 as 100.0 are 119.7 for August, 1931, and 119.4 for September, 1931.

<sup>2</sup> For index numbers of each month, January, 1913, to December, 1928, see Bulletin No. 396, pp. 44 to 61; and Bulletin No. 495, pp. 32 to 45. Index numbers for 1929 are published in each Labor Review, February, 1930, to February, 1931.



TABLE 4.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD BY YEARS, 1913, 1920 TO 1930, AND BY MONTHS FOR 1930 AND 1931

[Average for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Lamb, leg of	Hens	Milk	Butter
1913.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920.....	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	207.9	209.9	187.6	183.0
1921.....	152.8	154.3	147.0	132.5	118.2	166.2	158.2	181.4	178.3	186.4	164.0	135.0
1922.....	147.2	144.8	139.4	123.1	105.8	157.1	147.4	181.4	193.7	169.0	147.2	125.1
1923.....	153.9	150.2	143.4	126.3	106.6	144.8	144.8	169.1	194.2	164.3	155.1	144.7
1924.....	155.9	151.6	145.5	130.0	109.1	146.7	139.6	168.4	196.3	165.7	155.1	135.0
1925.....	159.8	155.6	149.5	135.0	114.1	174.3	173.0	195.5	204.2	171.8	157.3	143.1
1926.....	162.6	159.6	153.0	140.6	120.7	188.1	186.3	213.4	206.3	182.2	157.3	138.6
1927.....	167.7	166.4	158.1	148.1	127.3	175.2	174.8	204.5	205.8	173.2	158.4	145.2
1928.....	188.2	188.3	176.8	174.4	157.0	165.7	163.0	196.7	208.5	175.6	159.6	147.5
1929.....	196.9	199.1	185.4	186.9	172.7	175.7	161.1	204.1	212.2	186.4	160.7	143.9
1930.....	182.7	184.8	172.7	170.0	155.4	171.0	156.7	198.5	185.7	166.7	157.3	120.4
January.....	192.9	195.5	183.3	184.4	172.7	168.1	157.0	199.3	206.9	178.4	159.6	121.9
February.....	191.3	194.2	181.8	184.4	171.9	167.6	157.8	200.7	201.6	179.3	158.4	122.7
March.....	190.6	192.8	181.3	182.5	170.2	171.9	157.8	201.1	193.7	179.8	157.3	121.9
April.....	190.2	193.3	181.3	182.5	168.6	176.7	157.4	200.4	189.4	179.3	157.3	125.6
May.....	190.2	192.8	179.8	179.4	164.5	171.9	156.7	200.7	189.9	175.6	157.3	120.9
June.....	188.6	191.5	177.3	175.6	160.3	174.3	156.7	200.7	193.7	167.6	157.3	113.1
July.....	182.3	184.3	171.7	166.3	149.6	173.8	156.7	200.0	188.9	161.5	157.3	114.1
August.....	175.6	176.7	163.1	155.6	138.8	174.8	155.6	198.1	178.3	158.7	157.3	123.8
September.....	177.2	178.0	166.7	160.0	142.1	186.2	158.1	198.9	179.9	159.6	157.3	127.2
October.....	175.2	176.2	164.1	158.7	142.1	180.5	157.8	197.4	173.5	158.7	157.3	124.8
November.....	170.5	170.9	160.6	154.4	139.7	156.2	155.9	193.7	166.1	153.1	157.3	118.5
December.....	168.9	169.1	159.6	153.8	139.7	149.5	153.0	191.4	164.6	150.2	151.7	111.0
1931:												
January.....	167.3	168.2	159.1	152.5	138.0	141.9	148.9	188.1	166.1	153.5	149.4	98.4
February.....	161.4	161.0	154.0	145.6	131.4	131.4	145.2	183.3	164.6	148.8	146.1	94.8
March.....	158.7	157.8	153.0	141.9	128.1	140.0	143.0	178.4	164.0	150.2	144.9	97.4
April.....	157.5	156.5	150.0	139.4	124.8	141.4	141.1	175.5	165.6	153.1	141.6	91.9
May.....	155.5	154.7	147.0	135.6	119.8	143.3	139.3	172.9	165.1	148.8	138.2	81.5
June.....	152.4	151.1	142.9	130.6	112.4	140.0	136.7	170.6	161.9	146.0	134.8	80.7
July.....	154.3	154.3	142.9	130.0	110.7	151.4	137.0	171.4	158.7	144.6	136.0	82.8
August.....	155.5	155.2	143.9	130.0	109.9	158.6	135.6	171.4	156.6	145.1	136.0	89.8
September.....	155.1	154.3	142.9	130.6	111.6	153.3	134.1	169.5	152.4	145.1	136.0	96.1

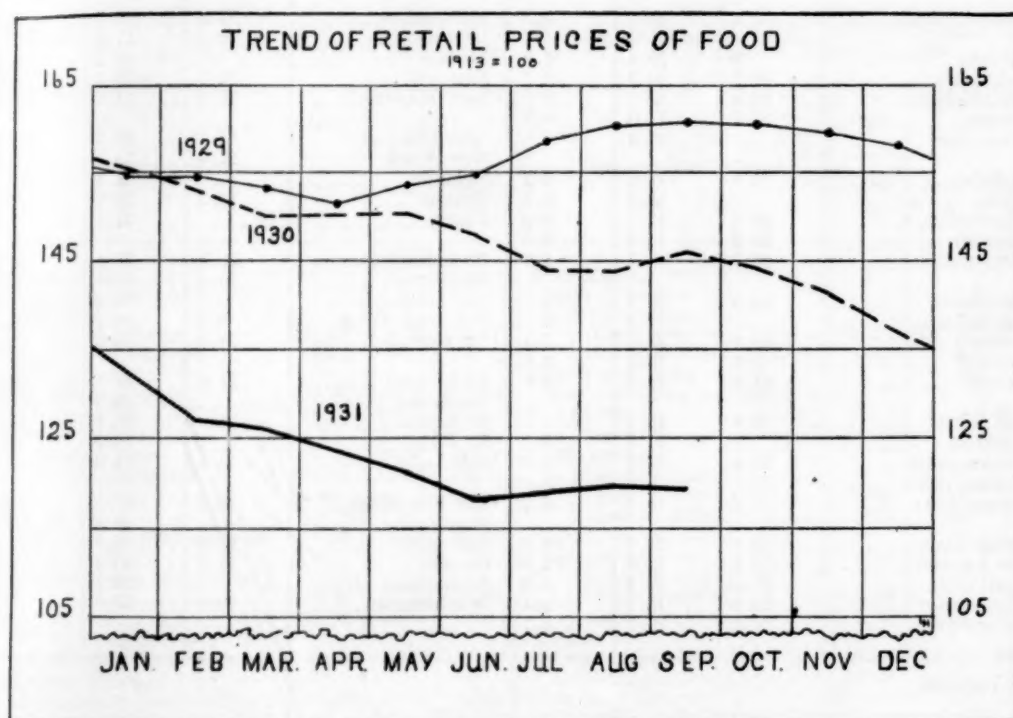
Year and month	Cheese	Lard	Eggs	Bread	Flour	Corn meal	Rice	Pota- toes	Sugar	Tea	Coffee	All ar- ticles <sup>1</sup>
1913.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920.....	188.2	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1921.....	153.9	113.9	147.5	176.8	175.8	150.0	109.2	182.4	145.5	128.1	121.8	153.3
1922.....	148.9	107.6	128.7	155.4	154.5	130.0	109.2	164.7	132.7	125.2	121.1	141.6
1923.....	167.0	112.0	134.8	155.4	142.4	136.7	109.2	170.6	183.6	127.8	126.5	146.2
1924.....	159.7	120.3	138.6	157.1	148.5	156.7	116.1	158.8	167.3	131.4	145.3	145.9
1925.....	166.1	147.5	151.0	167.9	184.8	180.0	127.6	211.8	130.9	138.8	172.8	157.4
1926.....	165.6	138.6	140.6	167.9	181.8	170.0	133.3	288.2	125.5	141.0	171.1	160.6
1927.....	170.1	122.2	131.0	166.1	166.7	173.3	123.0	232.5	132.7	142.5	162.1	155.4
1928.....	174.2	117.7	134.5	162.5	163.6	176.7	114.9	158.8	129.1	142.3	165.1	154.3
1929.....	171.9	115.8	142.0	160.7	154.5	176.7	111.5	188.2	120.0	142.6	164.8	156.7
1930.....	158.8	107.6	118.8	155.4	142.4	176.7	109.2	211.8	112.7	142.5	136.2	147.1
January.....	169.2	108.9	160.6	158.9	154.5	180.0	110.3	229.4	120.0	143.4	147.0	155.4
February.....	167.0	108.2	136.8	157.1	154.4	176.7	110.3	229.4	118.2	143.2	143.3	153.0
March.....	164.7	107.0	102.3	157.1	151.5	176.7	109.2	229.4	116.4	142.8	140.6	150.1
April.....	162.9	106.3	100.0	157.1	148.5	176.7	110.3	241.2	114.5	142.5	138.9	151.2
May.....	162.0	105.7	97.7	157.1	145.5	176.7	109.2	252.9	114.5	142.5	137.2	150.1
June.....	157.9	105.1	97.4	157.1	145.5	176.7	109.2	247.1	110.9	143.0	136.2	147.9
July.....	155.2	103.2	101.7	157.1	139.4	176.7	109.2	194.1	110.9	142.6	135.6	144.0
August.....	153.4	104.4	112.5	155.4	136.4	176.7	109.2	182.4	110.9	142.3	134.6	143.7
September.....	154.8	110.8	124.9	155.4	133.3	176.7	110.3	188.2	107.3	142.1	132.6	145.6
October.....	154.8	112.0	129.9	153.6	130.3	176.7	109.2	182.4	105.5	141.9	131.2	144.4
November.....	152.9	110.8	140.3	151.8	127.3	173.3	106.9	170.6	107.3	141.4	129.9	141.4
December.....	150.2	105.7	120.6	151.8	124.2	173.3	105.8	170.6	107.3	141.4	129.2	137.2
1931:												
January.....	145.2	99.4	104.6	146.4	121.2	170.0	102.3	170.6	107.3	141.0	126.8	132.8
February.....	141.2	91.8	78.8	142.9	121.2	166.7	102.3	158.8	107.3	140.6	125.2	127.0
March.....	137.1	89.9	82.6	141.1	118.2	166.7	98.9	158.8	105.5	139.7	121.8	126.4
April.....	132.6	89.9	79.4	137.5	115.2	163.3	96.6	164.7	103.6	138.2	116.1	124.0
May.....	124.0	85.4	71.9	137.5	112.1	153.3	95.4	164.7	101.8	136.9	112.4	121.0
June.....	119.9	82.3	74.8	135.7	112.1	150.0	94.3	141.2	101.8	136.8	111.1	118.3
July.....	118.6	82.3	82.9	133.9	109.1	150.0	93.1	135.3	101.8	137.3	109.1	119.0
August.....	119.9	81.0	92.5	132.1	103.0	150.0	93.1	129.4	103.6	138.6	108.7	119.7
September.....	122.2	79.8	98.0	130.4	100.0	150.0	92.0	117.6	103.6	139.3	108.7	119.4

<sup>1</sup> 22 articles in 1913-1920; 42 articles in 1921-1931.

The curve shown in the chart below pictures more readily to the eye the changes in the cost of the food budget than do the index numbers given in the table.

#### Comparison of Retail Food Costs in 51 Cities

TABLE 5 shows for 39 cities the percentage of increase or decrease in the retail cost of food<sup>3</sup> in September, 1931, compared with the average cost in the year 1913, in September, 1930, and August, 1931. For 12 other cities comparisons are given for the 1-year and the 1-month periods; these cities have been scheduled by the bureau at different dates since 1913. The percentage changes are based on actual retail prices secured each month from retail dealers and on the average consumption of these articles in each city.<sup>4</sup>



Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of September schedules were received from 99.8 per cent of the firms in the 51 cities from which retail prices of food are collected. A perfect record is shown for the following named 48 cities: Atlanta, Baltimore, Birmingham, Bridgeport, Buffalo, Charleston (S. C.), Cincinnati, Cleveland, Columbus, Dallas, Denver, Detroit, Fall River, Houston, Indianapolis, Jacksonville, Kansas City, Little Rock, Los Angeles, Louisville, Manchester, Memphis, Milwaukee, Minneapolis, Mobile, Newark, New Haven, New Orleans, New York, Norfolk, Omaha, Peoria, Philadelphia, Pittsburgh, Portland (Me.), Portland (Oreg.), Providence, Richmond, Rochester, St. Louis, St. Paul, Salt Lake City, San Francisco, Savannah, Scranton, Seattle, Springfield (Ill.), and Washington.

<sup>3</sup> For list of articles see note 2, p. 236.

<sup>4</sup> The consumption figures used for January, 1913, to December, 1920, for each article in each city are given in the Labor Review for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month beginning with January, 1921, are given in the Labor Review for March, 1921, p. 26.

Out of about 1,500 food reports only 3 were not received—1 each in Boston, Butte, and Chicago.

Out of about 350 bread reports 4 were missing—2 in Atlanta and 1 each in Columbus and Seattle.

TABLE 5.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN SEPTEMBER, 1931, COMPARED WITH THE COST IN AUGUST, 1931, SEPTEMBER, 1930, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES AND IN THE UNITED STATES

City	Percent- age in- crease Septem- ber, 1931, compared with 1913	Percentage decrease September, 1931, compared with—		City	Percent- age in- crease Septem- ber, 1931, compared with 1913	Percentage decrease September, 1931, compared with—	
		Septem- ber, 1930	August, 1931			Septem- ber, 1930	August, 1931
United States.....	19.4	18.1	0.3	Milwaukee.....	23.2	16.5	1.0
Atlanta.....	17.6	19.4	1.3	Minneapolis.....	20.3	17.9	1.2
Baltimore.....	24.7	16.6	0.2	Mobile.....		19.2	<sup>1</sup> 0.3
Birmingham.....	15.8	22.7	0.5	Newark.....	22.5	13.2	0.0
Boston.....	23.7	17.0	0.0	New Haven.....	26.1	14.5	<sup>1</sup> 0.9
Bridgeport.....		15.0	<sup>1</sup> 0.8	New Orleans.....	15.7	20.3	<sup>1</sup> 1.6
Buffalo.....	22.9	17.9	<sup>1</sup> 0.2	New York.....	26.9	15.3	<sup>1</sup> 0.3
Butte.....		11.3	0.3	Norfolk.....		18.3	<sup>1</sup> 1.1
Charleston, S. C.....	23.6	17.7	0.2	Omaha.....	12.3	19.6	1.8
Chicago.....	33.9	15.3	0.4	Peoria.....		21.1	1.2
Cincinnati.....	25.7	18.7	1.0	Philadelphia.....	26.9	13.8	0.8
Cleveland.....	13.8	20.3	0.7	Pittsburgh.....	19.6	19.6	0.3
Columbus.....		19.5	0.4	Portland, Me.....		15.2	1.4
Dallas.....	11.6	22.0	1.3	Portland, Oreg.....	8.0	16.2	<sup>1</sup> 0.1
Denver.....	9.6	16.2	0.8	Providence.....	24.0	16.3	<sup>1</sup> 0.5
Detroit.....	21.8	18.1	<sup>1</sup> 0.8	Richmond.....	21.6	19.5	<sup>1</sup> 0.1
Fall River.....	16.4	18.2	<sup>1</sup> 1.3	Rochester.....		19.9	<sup>1</sup> 0.6
Houston.....		21.5	1.5	St. Louis.....	21.0	18.8	1.3
Indianapolis.....	14.8	21.0	1.2	St. Paul.....		19.2	2.0
Jacksonville.....	11.6	19.6	<sup>1</sup> 0.1	Salt Lake City.....	5.4	15.8	0.6
Kansas City.....	17.4	16.9	0.2	San Francisco.....	19.5	17.5	<sup>1</sup> 1.8
Little Rock.....	10.4	21.5	<sup>1</sup> 1.6	Savannah.....		20.5	1.7
Los Angeles.....	10.2	16.9	<sup>1</sup> 2.3	Scranton.....	27.2	16.3	<sup>1</sup> 0.9
Louisville.....	11.2	22.4	1.2	Seattle.....	15.2	15.4	0.4
Manchester.....	22.0	15.3	0.1	Springfield, Ill.....		23.1	0.4
Memphis.....	10.0	21.1	0.1	Washington.....	29.8	16.0	0.1

<sup>1</sup> Increase.



Retail Prices of Coal in September, 1931<sup>1</sup>

THE following table shows the average retail prices of coal on September 15, 1930, and August 15 and September 15, 1931, for the United States and for each of the cities from which retail food prices have been obtained. The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON SEPTEMBER 15, 1930, AND AUGUST 15 AND SEPTEMBER 15, 1931

City, and kind of coal	1930	1931		City, and kind of coal	1930	1931	
	Sept. 15	Aug. 15	Sept. 15		Sept. 15	Aug. 15	Sept. 15
United States:				Cincinnati, Ohio:			
Pennsylvania anthracite—				Bituminous—			
Stove—				Prepared sizes—			
Average price.....	\$15.08	\$14.76	\$14.97	High volatile.....	\$6.15	\$5.55	\$5.50
Index (1913=100).....	195.2	191.1	193.8	Low volatile.....	8.23	7.53	7.90
Chestnut—				Cleveland, Ohio:			
Average price.....	\$14.80	\$14.73	\$14.93	Pennsylvania anthracite—			
Index (1913=100).....	187.0	186.1	188.7	Stove.....	14.44	14.25	14.38
Bituminous—				Chestnut.....	14.13	14.13	14.25
Average price.....	\$8.79	\$8.11	\$8.17	Bituminous—			
Index (1913=100).....	161.7	149.3	150.4	Prepared sizes—			
Atlanta, Ga.:				High volatile.....	6.89	6.64	6.58
Bituminous, prepared sizes.	\$7.50	\$6.66	\$6.74	Low volatile.....	9.61	9.07	9.29
Baltimore, Md.:				Columbus, Ohio:			
Pennsylvania anthracite—				Bituminous—			
Stove.....	14.25	13.75	14.00	Prepared sizes—			
Chestnut.....	13.75	13.50	13.75	High volatile.....	5.98	5.34	5.29
Bituminous, run of mine—				Low volatile.....	7.56	6.83	6.92
High volatile.....	7.96	7.25	7.36	Dallas, Tex.:			
Bituminous, prepared sizes.	7.26	6.39	6.41	Arkansas anthracite—Egg..	15.00	13.25	13.00
Boston, Mass.:				Bituminous, prepared sizes.	12.58	11.00	10.50
Pennsylvania anthracite—				Denver, Colo.:			
Stove.....	16.25	15.05	15.10	Colorado anthracite—			
Chestnut.....	15.75	15.10	15.10	Furnace, 1 and 2 mixed..	15.25	15.00	14.75
Bridgeport, Conn.:				Stove, 3 and 5 mixed.....	15.25	15.00	14.75
Pennsylvania anthracite—				Bituminous, prepared sizes.	10.29	8.24	8.14
Stove.....	14.50	14.00	14.00	Detroit, Mich.:			
Chestnut.....	14.50	14.00	14.00	Pennsylvania anthracite—			
Buffalo, N. Y.:				Stove.....	15.00	14.50	14.50
Pennsylvania anthracite—				Chestnut.....	15.00	14.50	14.50
Stove.....	13.67	13.20	13.40	Bituminous—			
Chestnut.....	13.17	13.20	13.40	Prepared sizes—			
Butte, Mont.:				High volatile.....	8.18	7.00	6.78
Bituminous, prepared sizes.	10.40	10.49	10.11	Low volatile.....	9.77	8.14	7.96
Charleston, S. C.:				Run of mine—			
Bituminous, prepared sizes.	9.67	9.67	9.50	Low volatile.....	7.83	7.19	7.19
Chicago, Ill.:				Fall River, Mass.:			
Pennsylvania anthracite—				Pennsylvania anthracite—			
Stove.....	16.38	16.50	16.75	Stove.....	16.50	15.50	15.50
Chestnut.....	16.21	16.50	16.75	Chestnut.....	16.25	15.50	15.50
Bituminous—				Houston, Tex.:			
Prepared sizes—				Bituminous, prepared sizes.	11.60	10.40	10.60
High volatile.....	8.08	7.78	7.89	Indianapolis, Ind.:			
Low volatile.....	11.89	10.61	10.88	Bituminous—			
Run of mine—				Prepared sizes—			
Low volatile.....	7.75	7.23	7.47	High volatile.....	5.89	5.80	5.79
				Low volatile.....	8.38	8.25	8.29
				Run of mine—			
				Low volatile.....	7.00	6.75	6.65

<sup>1</sup> Prices of coal were formerly secured semiannually and published in the March and September issues of the Labor Review. Since June, 1929, these prices have been secured and published monthly.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON SEPTEMBER 15, 1930, AND AUGUST 15 AND SEPTEMBER 13, 1931—Continued

City, and kind of coal	1930	1931		City, and kind of coal	1930	1931	
	Sept. 15	Aug. 15	Sept. 15		Sept. 15	Aug. 15	Sept. 15
Jacksonville, Fla.: Bituminous, prepared sizes	\$10.00	\$9.50	\$10.00	Pittsburgh, Pa.: Pennsylvania anthracite— Chestnut	\$14.75	\$14.00	\$13.75
Kansas City, Mo.: Arkansas anthracite— Furnace	12.42	11.31	11.38	Bituminous, prepared sizes	4.98	4.86	4.82
Stove No. 4	13.25	12.50	12.92	Portland, Me.: Pennsylvania anthracite— Stove	16.80	16.32	16.80
Bituminous, prepared sizes	7.06	6.27	6.30	Chestnut	16.80	16.32	16.80
Little Rock, Ark.: Arkansas anthracite—Egg	12.50	11.50	11.50	Portland, Oreg.: Bituminous, prepared sizes	13.09	12.51	12.63
Bituminous, prepared sizes	9.20	8.61	8.61	Providence, R. I.: Pennsylvania anthracite— Stove	116.00	115.25	115.75
Los Angeles, Calif.: Bituminous, prepared sizes	16.25	15.75	15.75	Chestnut	116.00	115.25	115.75
Louisville, Ky.: Bituminous— Prepared sizes— High volatile	6.19	5.03	5.03	Richmond, Va.: Pennsylvania anthracite— Stove	15.00	14.00	14.50
Low volatile	8.75	7.75	7.75	Chestnut	15.00	14.00	14.50
Manchester, N. H.: Pennsylvania anthracite— Stove	16.83	16.00	16.17	Bituminous— Prepared sizes— High volatile	8.75	7.67	8.17
Chestnut	16.83	16.00	16.17	Low volatile	8.85	8.31	8.81
Memphis, Tenn.: Bituminous, prepared sizes	7.85	7.00	6.98	Run of mine— Low volatile	7.25	6.75	7.25
Milwaukee, Wis.: Pennsylvania anthracite— Stove	15.75	15.85	16.05	Rochester, N. Y.: Pennsylvania anthracite— Stove	14.75	14.18	14.50
Chestnut	15.36	15.85	16.05	Chestnut	14.25	14.18	14.50
Bituminous— Prepared sizes— High volatile	7.68	7.51	7.51	St. Louis, Mo.: Pennsylvania anthracite— Stove	16.25	16.47	16.66
Low volatile	10.46	9.75	9.96	Chestnut	16.00	16.41	16.60
Minneapolis, Minn.: Pennsylvania anthracite— Stove	17.26	17.81	18.05	Bituminous, prepared sizes	6.34	5.67	5.70
Chestnut	16.99	17.81	18.05	St. Paul, Minn.: Pennsylvania anthracite— Stove	17.60	17.86	18.05
Bituminous— Prepared sizes— High volatile	9.99	9.91	9.87	Chestnut	17.15	17.86	18.05
Low volatile	12.89	12.40	12.43	Bituminous— Prepared sizes— High volatile	10.25	9.72	9.53
Mobile, Ala.: Bituminous, prepared sizes	8.88	8.27	8.25	Low volatile	13.25	12.54	12.45
Newark, N. J.: Pennsylvania anthracite— Stove	13.90	13.42	13.55	Salt Lake City, Utah: Bituminous, prepared sizes	8.40	7.63	7.63
Chestnut	13.40	13.42	13.55	San Francisco, Calif.: New Mexico anthracite— Cerrillos egg	26.00	25.00	26.00
New Haven, Conn.: Pennsylvania anthracite— Stove	14.90	14.65	14.65	Colorado anthracite— Egg	25.00	24.50	25.50
Chestnut	14.90	14.65	14.65	Bituminous, prepared sizes	17.00	16.00	17.50
New Orleans, La.: Bituminous, prepared sizes	9.11	8.07	8.07	Savannah, Ga.: Bituminous, prepared sizes	<sup>2</sup> 9.62	<sup>2</sup> 9.28	<sup>2</sup> 9.28
New York, N. Y.: Pennsylvania anthracite— Stove	14.04	13.75	13.92	Scranton, Pa.: Pennsylvania anthracite— Stove	10.22	10.10	10.30
Chestnut	13.56	13.75	13.92	Chestnut	9.85	10.08	10.28
Norfolk, Va.: Pennsylvania anthracite— Stove	14.50	14.00	14.50	Seattle, Wash.: Bituminous, prepared sizes	10.65	10.20	10.62
Chestnut	14.50	14.00	14.50	Springfield, Ill.: Bituminous, prepared sizes	4.34	4.34	4.34
Bituminous— Prepared sizes— High volatile	7.38	6.50	7.00	Washington, D. C.: Pennsylvania anthracite— Stove	<sup>3</sup> 15.62	<sup>3</sup> 15.15	<sup>3</sup> 15.40
Low volatile	9.00	8.50	9.00	Chestnut	<sup>3</sup> 15.23	<sup>3</sup> 15.15	<sup>3</sup> 15.40
Run of mine— Low volatile	7.00	6.50	7.00	Bituminous— Prepared sizes— High volatile	<sup>3</sup> 8.63	<sup>3</sup> 8.41	<sup>3</sup> 8.46
Omaha, Nebr.: Bituminous, prepared sizes	9.52	8.89	8.89	Low volatile	<sup>3</sup> 11.43	<sup>3</sup> 10.86	<sup>3</sup> 11.04
Peoria, Ill.: Bituminous, prepared sizes	6.28	6.05	6.09	Run of mine— Mixed	<sup>3</sup> 7.81	<sup>3</sup> 7.78	<sup>3</sup> 7.75
Philadelphia, Pa.: Pennsylvania anthracite— Stove	13.83	13.00	13.25				
Chestnut	13.23	13.00	13.25				

<sup>1</sup> The average price of coal delivered in bins is 50 cents higher than here shown. Practically all coal is delivered in bin.

<sup>2</sup> All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.

<sup>3</sup> Per ton of 2,240 pounds.

**Index Numbers of Wholesale Prices in September, 1931**

THE index number of wholesale prices as computed by the Bureau of Labor Statistics of the United States Department of Labor shows a decrease for September. This index number, which includes 550 commodities or price series weighted according to the importance of each article and based on the average prices for 1926 as 100, declined from 70.2 in August to 69.1 in September, a decrease of a little more than 1½ per cent. When compared with September, 1930, with an index number of 84.2, a decrease of 18 per cent has been recorded.

Decreases in the prices of corn, cows, hogs, sheep, cotton, fresh apples, seeds, white potatoes, sweet potatoes, tobacco, and wool caused farm products as a group to average 4¾ per cent lower in September than in August. On the other hand, the prices of barley, oats, rye, wheat, eggs, lemons, and oranges were higher than in the month before.

Among foods price decreases were reported for lamb, fresh and cured pork, dressed poultry, coffee, corn meal, rice, raw and granulated sugar, and vegetable oils, resulting in a 1 per cent decrease for the group as a whole. Butter, cheese, fresh and cured beef, oleomargarine, canned pineapple, rye flour, and bananas averaged higher than in August.

A marked decline in the general average price of hides and skins and leather during September forced the hides and leather group as a whole down more than 4 per cent. Boots and shoes showed no change from the month before.

In the group of textile products cotton goods, woolen and worsted goods, and other textile products showed further price decreases from August to September, while no change took place in silk and rayon. The textile group as a whole declined 2 per cent.

Advancing prices for crude petroleum and petroleum products, together with the usual seasonal rise in anthracite and bituminous coal prices, caused the fuel and lighting group to move upward a little more than 1½ per cent. No change was reported in the average prices for coke.

Negligible fluctuations in the prices of the items composing the metals and metal products group produced little change on the group as a whole. Automobiles advanced slightly and nonferrous and other metals eased off slightly, while iron and steel and agricultural implements showed no change.

Lumber, brick, paint materials, and other building materials continued their downward movement in September. No change was shown for cement and structural steel. The group as a whole showed a decrease of less than 1 per cent.

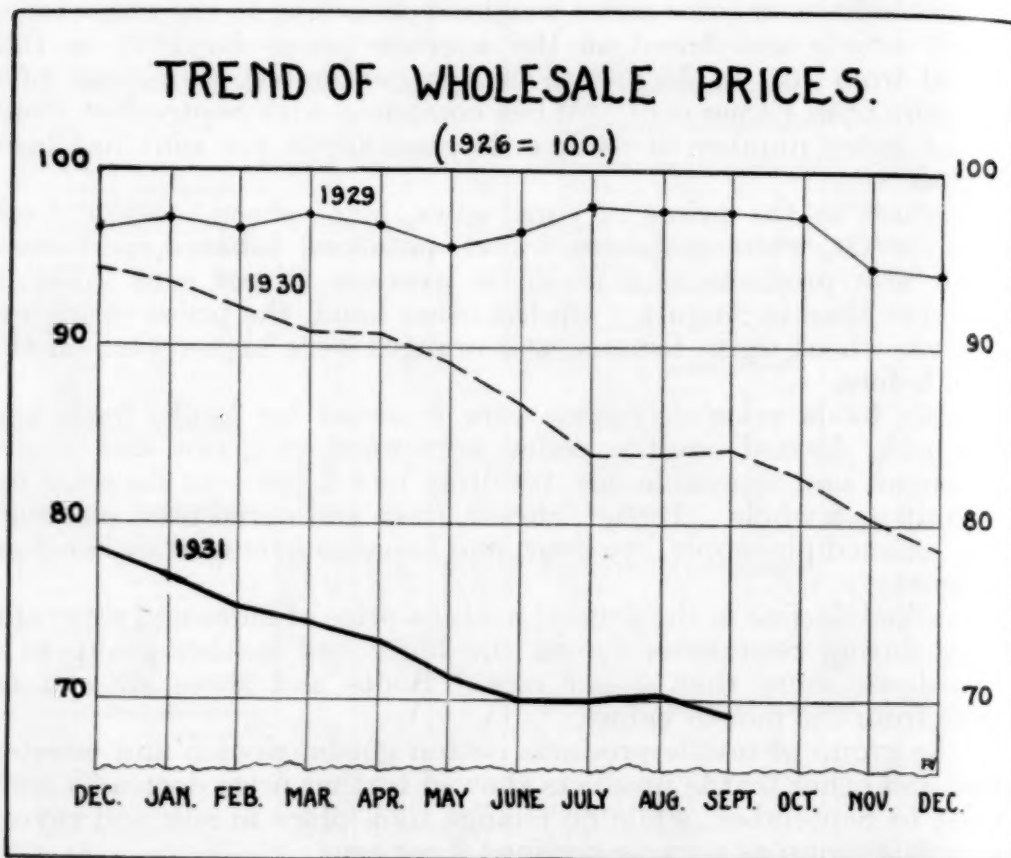
Further price recessions during September for chemicals, drugs and pharmaceuticals, mixed fertilizers, and fertilizer materials caused the chemicals and drugs group to decline about 1 per cent. Both furniture and furnishings in the group of house-furnishing goods continued to decline in the month.

Paper and pulp and other miscellaneous articles advanced slightly during the month, whereas cattle feed and crude rubber showed decided declines. No change was reported in the price of automobile tires.



Raw materials as a whole averaged lower than in August, as did also semimanufactured articles and finished products.

In the large group of nonagricultural commodities, including all articles other than farm products, and among all commodities other



than farm products and foods, the September prices showed a downward movement from those for the month before.

Between August and September decreases took place in 181 instances, increases in 102 instances, while in 267 instances no change occurred.

## INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES (1926=100.0)

Groups and subgroups	September, 1930	August, 1931	September, 1931	Purchasing power of the dollar September, 1931
All commodities.....	84.2	70.2	69.1	\$1.447
Farm products.....	85.3	63.5	60.5	1.653
Grains.....	77.0	44.8	44.2	2.262
Livestock and poultry.....	88.0	67.0	61.0	1.639
Other farm products.....	86.4	67.3	65.4	1.529
Foods.....	89.2	73.7	72.9	1.372
Butter, cheese, and milk.....	99.6	82.5	84.8	1.179
Meats.....	99.2	76.0	73.6	1.359
Other foods.....	79.3	68.8	67.6	1.479
Hides and leather products.....	99.1	88.5	84.8	1.179
Hides and skins.....	94.2	69.1	58.6	1.706
Leather.....	98.2	90.3	83.4	1.199
Boots and shoes.....	100.5	93.5	93.5	1.070
Other leather products.....	105.0	101.3	101.0	.990
Textile products.....	75.5	64.2	62.9	1.590
Cotton goods.....	82.8	69.8	67.7	1.477
Silk and rayon.....	55.4	44.8	44.8	2.232
Woolen and worsted goods.....	84.6	75.3	73.5	1.361
Other textile products.....	61.3	50.9	50.8	1.969
Fuel and lighting materials.....	76.3	62.3	63.3	1.580
Anthracite coal.....	89.1	92.2	94.3	1.060
Bituminous coal.....	89.2	83.7	83.9	1.192
Coke.....	83.9	81.5	81.5	1.227
Gas.....	101.3	103.2	(1)	-----
Petroleum products.....	62.0	37.5	38.9	2.571
Metals and metal products.....	91.8	87.1	87.2	1.147
Iron and steel.....	89.5	86.6	86.6	1.155
Nonferrous metals.....	71.2	58.0	56.8	1.761
Agricultural implements.....	94.9	94.5	94.5	1.058
Automobiles.....	101.6	98.9	99.7	1.003
Other metal products.....	98.4	92.1	90.5	1.105
Building materials.....	86.4	75.4	74.9	1.335
Lumber.....	80.8	66.0	65.5	1.527
Brick.....	82.3	80.4	79.8	1.253
Cement.....	91.7	75.8	75.8	1.319
Structural steel.....	81.7	81.7	81.7	1.224
Paint materials.....	78.1	66.8	64.9	1.541
Other building materials.....	98.0	89.3	89.0	1.124
Chemicals and drugs.....	86.6	75.5	74.8	1.337
Chemicals.....	90.9	78.5	77.8	1.285
Drugs and pharmaceuticals.....	66.8	61.4	61.1	1.637
Fertilizer materials.....	83.1	74.4	74.2	1.348
Mixed fertilizers.....	92.5	78.7	77.6	1.289
House-furnishing goods.....	95.4	87.5	84.7	1.181
Furniture.....	96.5	91.9	87.3	1.145
Furnishings.....	94.4	83.7	82.4	1.214
Miscellaneous.....	69.7	58.5	58.4	1.712
Cattle feed.....	93.6	50.8	44.4	2.252
Paper and pulp.....	83.5	80.1	80.3	1.245
Rubber.....	17.1	11.2	10.6	9.434
Automobile tires.....	52.0	45.7	45.7	2.188
Other miscellaneous.....	93.8	75.5	76.9	1.300
Raw materials.....	82.1	64.1	62.7	1.595
Semimanufactured articles.....	76.5	68.3	66.3	1.508
Finished products.....	86.8	74.6	74.0	1.351
Nonagricultural commodities.....	84.0	72.1	71.7	1.395
All commodities less farm products and foods.....	82.8	72.3	72.0	1.389

<sup>1</sup> Data not yet available.

## COST OF LIVING

### Need for a New Survey of Family Budgets and Buying Habits

**L**OUIS I. DUBLIN, statistician, and William A. Berridge, economist, members of the staff of the Metropolitan Life Insurance Co., have recently called attention to the need for a new survey of American family budgets and buying habits from a welfare point of view and an economic and merchandising point of view, respectively.<sup>1</sup>

#### General Welfare Aspects

IN DISCUSSING family budgets from a general welfare point of view, Doctor Dublin states that the question of adjusting wages has come up for serious discussion in recent months, with certain groups insisting that a downward revision of wages is necessary to conform with the lowered price level and other groups stating that wages must be maintained as an important influence leading to business revival. Whatever direction wages take the writer of the report under review suggests that it is of the utmost importance to know in detail what Americans earn and how they spend their incomes. This is especially necessary in view of the fact that habits and living standards have changed materially in the past few decades.

*Studies made to date.*—The writer discusses briefly the studies of cost and standard of living that have been made, stating that it was not until the war years that interest in this kind of investigation was aroused. Of the studies available, that of the United States Department of Labor, entitled "The Cost of Living in the United States,"<sup>2</sup> and covering 12,000 working-class families in 92 industrial centers of the country during 1918-19, is mentioned. The findings in this study Doctor Dublin regards as of great significance because the study represents the wage-earning class, the large mass of the American people.

It has likewise been important to know what the necessary expenditures of dependent families and of families in the higher income classes are. To this end the Charity Organization Society of New York worked out an estimate that \$25 a week is the minimum required to maintain dependent families in health and decency. Minimum comfort budgets, on the other hand, may not be maintained for less than \$1,800 to \$2,000 per year.

For the well-to-do class Dr. Jessica D. Peixotto has studied the actual expenses, namely for a group of faculty members on the staff of the University of California. In this group incomes ranged from \$1,800 to \$16,000, and obviously, a smaller percentage of income was spent on food and clothing than by the low-paid workers and a wider margin was available for miscellaneous expenditures.

*Need for further surveys.*—Because of the fragmentary nature of the information on family budgets now available, and because the studies

<sup>1</sup> Pamphlet entitled "The Need for a New Survey of Family Budgets and Buying Habits."

<sup>2</sup> U. S. Bureau of Labor Statistics Bul. No. 357.



in existence were made some years back, Doctor Dublin urges that a new study be made, stating:

It is clear that there is a distressing lack of factual information on how American families spend their money. The most extensive statistical study is more than 12 years old and the only one which deals with those above the lower income groups is both old and fragmentary. All who have studied this subject, therefore, agree that the time is ripe for another thoroughgoing investigation, to be made preferably under the auspices of the Federal Government itself; and in line with this thought, Ray Lyman Wilbur, Secretary of the Interior, almost two years ago, asked the Social Science Research Council to draw up a plan to be followed in the conduct of such a study, believing that the Government would agree to do the work.

The Social Science Research Council has submitted a plan for carrying forward such a study. It is proposed that the study include families of different sizes and with incomes up to \$10,000 a year, and that the Government should appropriate for and carry through the work.

Failing Government action the writer of the article under review states that such a study should be undertaken by private organizations because now, in a period of business recession, this type of information would be particularly valuable.

#### Economic and Merchandising Aspects

DOCTOR BERRIDGE regards family budget data as having a particular bearing on the plans laid by merchandisers, manufacturers, and persons engaged in market research, and states that the value of this type of knowledge is not restricted to the use of the theoretical sociologist, relief worker and labor leader. Believing such knowledge essential in adequate, fact-controlled planning, he regards it as important that up-to-date basic budget figures be made available. He states that market research has progressed rapidly since the war, but that study of this branch of our economic life is seriously handicapped because no recent study has been made of living costs, i. e., the kinds, quantities, and price ranges of articles used by Americans in various sections of the country. To learn what the consumption habits of the people are the writer of the report under discussion advocates a comprehensive survey of family budgets such as was made by the United States Bureau of Labor Statistics in 1918-19. He states that the impression prevails that in the years since this study was made more important changes in the allocation of family expenditures have occurred than in any other comparable period in the economic history of the country. For example, among the major groups of expenditures it is stated that the food group has as a whole undergone a striking deflation. At the same time some adjustment should be made for the greater use of automobiles and the changes in family living that the automobile has brought about.

*Economic uses of data.*—Two economic uses of family budget data are set down, as follows:

(1) One is the problem of setting up a more reliable "corrector" by which to convert indexes of the changing course of money income into indexes of the physical volume of goods and services which the aggregate money income will buy at any given time. (2) The other is the problem of setting up a comprehensive cross-section picture, showing how the consumption of a particular article varies among families of different income levels, geographical location, etc., as well as how the several products compete with each other for the consumer's dollar under any given conditions of income, location, etc.

*Market characteristics.*—Quite apart from the usefulness of up-to-date figures on family budgets in deriving sounder indexes of group costs and of the total composite cost of living for correcting money incomes is the use of such data in order to ascertain what the position of individual commodities is in the market and in relation to each other. The writer of the study under review states that this latter use is more immediate and specific than the economic uses, and is of interest to many manufacturers, merchandisers, advertising agencies, and others. Exemplifying this use, the question arises as to what the demand for life insurance is; that is, how much has the premium payment on life insurance risen in relation to income for the family as a whole and per individual, since the Bureau of Labor Statistics study was made in 1918-19. Also, how much is paid out per family for the maintenance of an automobile, what is the price of the radios in use, the amount spent for travel, amusement, and many other items.

*Proposal for further study.*—Doctor Berridge proposes that a comprehensive study, giving correlated information for all income brackets up to \$5,000, and possibly up to \$10,000, be made. He states that the ideal way to provide this basic market information would be to have the Federal Government repeat, in suitable expanded form, the field survey made by the Bureau of Labor Statistics. He advocates that such a study be made "at about the time when business conditions have revived sufficiently to resume a normal rate of activity in the Nation's industrial and other employments."

# IMMIGRATION AND EMIGRATION

## Statistics of Immigration for August, 1931

By J. J. KUNNA, CHIEF STATISTICIAN UNITED STATES BUREAU OF IMMIGRATION

A total of 20,670 aliens was admitted to the United States during August, 1931, including 4,090 immigrant and 16,580 nonimmigrant. The exodus of aliens this month totaled 32,550, of whom 23,009, or 70.7 per cent, were nonemigrants going abroad for a short stay or leaving after a visit in this country. The remaining 9,541 were emigrants departing for permanent residence in some foreign country. During the same month 59,372 American citizens returned to the United States and 65,895 left for foreign lands.

Of the 20,670 aliens who entered the country during August, 16,877 came in at the seaports and 13,718, or 81.3 per cent, of these landed at New York. Aliens coming via the northern and the southern land borders numbered 3,181 and 612, respectively. Europeans comprised 80.8 per cent of the New York arrivals, 11,090 aliens admitted at that port during August being natives of Europe, while 2,082 were born in Canada, Cuba, and other countries in the Western Hemisphere, 398 in Asia, 72 in Africa, and 76 in Australia and the Pacific islands. About one-half of the aliens entering at our principal seaport during August came back to a permanent residence in this country, 6,722 of the arrivals at New York this month having been admitted as returning residents under the immigration act of 1924. Of the other principal classes under the act, 4,592 were temporary visitors for business or pleasure or persons passing through the country, 1,103 were admitted as immigrants charged to the quota, and 775 came in as husbands, wives, or unmarried children of American citizens.

Of the principal classes of the 3,181 aliens entering via the Canadian border, 1,679 were temporary visitors for business or pleasure or persons passing through the country, and 764 came in under the act as natives of nonquota countries, mainly Canada. Almost three-fifths of the Mexican border arrivals were admitted under the act of 1924 as temporary visitors for business or pleasure or persons passing through the country, 354 being of this class.

Among the 4,090 immigrant aliens admitted during August, 1931, the Italian race led the list with 694, followed by the English with 637, while the German contributed 359, French, 313, Scotch, 288, Hebrew, 253, and Irish, 212. The other races or peoples contributed less than 200 each. During the corresponding month a year ago, the English race led the list with 2,334, followed by the Irish with 2,035, while the German was third in the list with 1,930. The Italian sent 1,444, while 1,411 were Scotch, 905 were French, and 782 were Hebrew.

The statistics for the first two months of the current fiscal year show a decrease in immigration of almost 75 per cent as compared with the same months a year ago. During July and August, 1931, 3,824 immigrants came from European countries, 2,875 from countries in the Western Hemisphere, 424 from Asia, and 141 from Africa, Australia,



New Zealand, and the Pacific islands. In July and August, 1930, 16,524 immigrants were admitted from Europe, 10,397 from the Western Hemisphere, 971 from Asia, and 247 from Africa, Australia, New Zealand, and the Pacific islands.

INWARD AND OUTWARD PASSENGER MOVEMENT, JULY AND AUGUST, 1931

Period	Inward					Aliens de- barred from enter- ing <sup>1</sup>	Outward					Aliens de- ported after enter- ing <sup>2</sup>
	Aliens admitted			United States citizens arrived	Total		Aliens departed			United States citizens de- parted	Total	
	Immi- grant	Non- immi- grant	Total				Emi- grant	Non- emi- grant	Total			
July, 1931.....	3, 174	12, 361	15, 535	30, 944	46, 479	761	7, 428	20, 450	27, 878	46, 961	74, 839	1, 681
August, 1931..	4, 090	16, 580	20, 670	59, 372	80, 042	657	9, 541	23, 009	32, 550	65, 895	98, 445	1, 584
Total.....	7, 264	28, 941	36, 205	90, 316	126, 521	1, 418	16, 969	43, 459	60, 428	112, 856	173, 284	3, 265

<sup>1</sup> These aliens are not included among arrivals, as they were not permitted to enter the United States.

<sup>2</sup> These aliens are included among aliens departed, they having entered the United States, legally or illegally, and later being deported.

# PUBLICATIONS RELATING TO LABOR

## Official—United States

CONFERENCE ON UNEMPLOYMENT AND OTHER INTERSTATE INDUSTRIAL PROBLEMS, ALBANY, N. Y., 1931.—*Proceedings, by the Governors of Massachusetts, Rhode Island, Connecticut, New Jersey, Pennsylvania, Ohio, and New York.* Albany, J. B. Lyon Co., printers, 1931. 103 pp.

An account of this conference was published in the March, 1931, issue of the Labor Review.

GEORGIA.—Industrial Commission. *Ninth and tenth annual reports, for the two years ending December 31, 1930.* Atlanta, 1931. 11 pp., folders.

Reviewed in this issue.

ILLINOIS.—Department of Mines and Minerals. *Forty-ninth coal report of Illinois, 1930.* Springfield, 1931. 244 pp.

KANSAS.—Commission of Labor and Industry. *Kansas Labor and Industrial Bulletin, Vol. I, No. 1.* Topeka, August, 1931. 4 pp.

This first issue of the Kansas Labor and Industrial Bulletin contains principally employment and industrial accident data, but the statement is made that when fully developed it will also carry "a variety of information of interest and value to industrial leaders and business men."

MASSACHUSETTS.—Department of Industrial Accidents. *Annual report, for the year ending June 30, 1930.* Boston, 1931. 89 pp., charts. (Public document No. 105.)

Reviewed in this issue.

NEW JERSEY.—Advisory Committee on Employment Problems to the Department of Labor. *The Federal-State-Municipal Employment Service of New Jersey: An analysis of its organization and operation, by Mary LaDame, and recommendations of committee on study of public employment offices.* Trenton, 1931. 72 pp.

Recommendations from this report are reproduced in this issue.

NEW YORK.—Crime Commission. *Report, 1930.* Albany, 1930. 454 pp. (Legislative document, 1930, No. 98.)

Contains a chapter on employment and crime, in which the following are among the subjects discussed: How young workers obtain their jobs, job turnover and employments among young workers, types of jobs held by young workers, intelligence and employment success, the employment of young offenders, and vocational guidance programs for maladjusted persons.

NORTH CAROLINA.—Industrial Commission. *Papers presented at the first annual state-wide industrial safety conference, High Point, November 13 and 14, 1930.* [Raleigh, 1931.] 111 pp.

OKLAHOMA.—Department of Labor. Bureau of Factory Inspection. *Bulletin No. 7-A, 1931 edition.* [Oklahoma City, 1931.] 138 pp., illus.

Contains the laws governing inspection and regulation of factories or other places where labor is employed, with a digest of safe practices and methods of eliminating industrial hazards caused by unguarded machinery, improper ventilation, electrical equipment, and spray painting.

OREGON.—Board for Vocational Education. *Sixth biennial report, 1929-1930.* Salem, 1931. 31 pp.

UNITED STATES.—Congress. Senate. Committee on Agriculture and Forestry. *Prices of food products. Hearings (71st Cong., 3d sess.) on S. Res. 374, S. Res. 405, and S. Res. 407, February 10 to 19, 1931. Washington, 1931. 335 pp.*

The resolutions listed called for the investigation of prices of bread, milk and other dairy products, and meat and meat-food products. The hearings recorded in this volume include statistics and other information from representatives of various companies or organizations immediately concerned with the products under consideration, as well as data compiled by the United States Department of Agriculture and the United States Bureau of Labor Statistics.

— Department of Agriculture. *Technical Bulletin No. 244: Harvesting small grain, soy beans, and clover in the Corn Belt with combines and binders, by L. A. Reynoldson and others. Washington, 1931. 54 pp., charts, illus.*

Includes information on labor requirements and costs in the operation of self-binders and different types of combines in the harvesting of small grains, soy beans, and clover, as shown by field surveys.

— Department of Commerce. Bureau of Foreign and Domestic Commerce. *Commerce yearbook, 1931. Vol. I.—United States. Washington, 1931. 696 pp., charts.*

— — — *Labor in the coal fields of Soviet Russia. Report to the Committee on Ways and Means (71st U. S. Cong., 3d sess.), December 20, 1930. Washington, 1931. 19 pp.*

— Department of Labor. Children's Bureau. *Publication No. 206: Child welfare in selected counties of Washington. Washington, 1931. 111 pp.*

A report on child dependency, neglect, and delinquency in six counties of the State of Washington, made in the spring of 1927 at the request of the Washington State Conference on Social Work. The study is held to show the need for "increased public responsibility and administrative provisions for the care of dependent, delinquent, and other handicapped children and for the strengthening of present legal provisions for their care." Recommendations are included, in formulating which the experience of other States and the conclusions and recommendations of the White House Conference on Child Health and Protection have been carefully considered.

— Department of the Interior. Office of Education. *Bulletin, 1931, No. 20: Biennial survey of education in the United States, 1928-1930. Chapter XI, Education of exceptional children, by Elise H. Martens. Washington, 1931. 38 pp. (Advance pages.)*

Among the problems connected with the subject studied in this bulletin are the following: "For which occupations should the mentally deficient, the deaf, and the partially sighted be educated? How does the problem of guidance for exceptional children differ from that of normal children? What responsibilities for follow-up and placement should the school assume for handicapped children?"

### Official—Foreign Countries

ALBERTA (CANADA).—Bureau of Labor. *Annual report, for the fiscal year 1930-31. Edmonton, 1931. 24 pp., charts.*

Includes classified weekly wage rates and weekly hours of labor based on returns from 2,620 firms.

AUSTRIA.—Bundesministerium für soziale Verwaltung. *Statistiken zur Arbeitslosenversicherung, 1920-1929. Vienna, 1930. 47 pp.*

Contains statistical data relating to public insurance against unemployment during 1920 to 1929, including age groups of the unemployed, duration of benefit payments, activities of employment service, etc.



AUSTRIA.—Zentral-Gewerbe-Inspektorat. *Die Amtstätigkeit der Gewerbe-Inspektorate im Jahre 1930. Vienna, 1931. lviii' 186 pp., diagrams, illus.*

Contains a report on factory inspection in Austria during 1930.—The first general part deals with labor legislation and the economic position of wage earners in Austria. The second part contains separate reports of 18 district labor inspectors. The third part includes special reports on prevention of accidents in underground work.

CANADA.—Bureau of Statistics. General Statistics Branch. *The Canada year-book, 1931. Ottawa, 1931. 1148 pp., maps, charts.*

Includes statistics on wages, employment and unemployment, production, prices and cost of living, trade-union membership, fatal industrial accidents, workmen's compensation, strikes and lockouts, old-age pensions, the cooperative movement, and labor legislation.

—Department of Labor. *Labor legislation in Canada, 1930. Ottawa, 1931. 157 pp.*

A summary of Canadian labor legislation for 1930 is published in this issue of the Labor Review.

DENMARK.—Invalideforsikringsraadet. *Beretning for aaret 1930. Copenhagen, 1931. 158 pp., charts.*

Annual report on public invalidity and old-age insurance in Denmark in 1930, including legislation, coverage, organization, and financial transactions during 1930. The table heads are in English as well as Danish and there is a summary in English of the administration of the invalidity insurance act through the invalidity insurance council.

—Ministry for Foreign Affairs and the Statistical Department. *Denmark, 1931. Copenhagen, 1931. 351 pp., illus. (In English.)*

Contains descriptive and statistical information in regard to Denmark, including labor protection, social insurance, child welfare, housing, cooperation, etc.

—Statistiske Departement. *Strejker og lockouter i Danmark, 1926-1930. Copenhagen, 1931. 39 pp. (Statistiske Meddelelser, 4 række, 88 bind, 5 hæfte.)*

A report on industrial disputes in Denmark during 1926-1930, including chapters on general conditions of employment in various industries.

FEDERATED MALAY STATES.—Labor Department. *Annual report, for the year 1930. Kuala Lumpur, 1931. 54 pp.*

Data on wages and labor conditions in the Federated Malay States, taken from this report, are given in this issue.

GERMANY.—[Reichsarbeitsministerium.] Reichsversicherungsamt. *Gesundheitsfürsorge in der Invalidenversicherung, 1930. Berlin, 1931. 106 pp., maps, charts.*

Deals with health care in connection with public insurance against invalidity in Germany during 1930, including preventive measures, such as proper housing, sanitation, wholesome food, etc.

GREAT BRITAIN.—Adult Education Committee. *Paper No. 10: The scope and practice of adult education. London, 1930. 91 pp.*

—Mines Department. *Coal mines act, 1930: The working of schemes under Part I of the act during the March quarter, 1931. London, 1931. 14 pp. (Cmd. 3905.)*

Reviewed in this issue.

—Permanent Consultative Committee on Official Statistics. *Guide to current official statistics of the United Kingdom, vol. 9 (1930). London, 1931. 319 pp.*

—Registry of Friendly Societies. *Report for the year 1931. Part 5, Building societies; Section II, Directory and summaries. London, 1931. 77 pp.*

GREAT BRITAIN.—Royal Commission on the Civil Service, 1929–1931. *Report*. London, 1931. 252 pp. (Cmd. 3909.)

The commission was appointed in October, 1929, to study conditions prevailing in the civil service and to make such recommendations as seemed desirable concerning methods of recruitment, remuneration, machinery for discussing and settling questions relating to conditions of service, conditions of retirement, and the like. The commission reports upon these subjects at considerable length, but the recent crisis in British affairs has changed the whole situation so radically as to make it improbable that there will be any attempt, at present, to carry out its recommendations.

— Royal Commission on Unemployment Insurance. *Appendices to the minutes of evidence taken before the Commission. Part III: Reports of a special investigation in eight industrial areas into the subsequent history of persons with disallowed claims to unemployment benefit*. London, 1931. Pages 104–197.

Data on the results of the investigation are given in this issue of the Labor Review.

HAMBURG (GERMANY).—Statistisches Landesamt. *Statistisches Jahrbuch für die Freie und Hansestadt Hamburg, 1930–31*. Hamburg, 1931. 464 pp.

Contains statistical information in regard to the city of Hamburg for 1930–31, including housing, cost of living, wages, social insurance, welfare work, etc.

INTERNATIONAL LABOR OFFICE.—*Studies and Reports, Series G (housing and welfare), No. 3: Housing policy in Europe; cheap home building*. Geneva, 1930. 378 pp. (World Peace Foundation, Boston, American distributor.)

Reviewed in this issue.

ITALY.—Istituto Centrale di Statistica. *Annuario statistico italiano, 1931*. Rome, 1931. 645 pp., maps, charts.

An annual volume of statistics published by the Central Statistical Institute of Italy. It includes statistics on prices, cost of living, labor unions, unemployment, and wages. The data are generally for January 1, 1931, but in several cases figures are given for the preceding few years for purposes of comparison.

LEAGUE OF NATIONS.—Economic Intelligence Service. *Memorandum on production and trade, 1925 to 1929–30*. Geneva, 1931. 139 pp., charts. (World Peace Foundation, Boston, American distributor.)

The several sections of the report cover population, production, international trade, and the relative movements in the prices of raw products and manufactured articles (1913 and 1928–1930).

— — *Statistical yearbook of the League of Nations, 1930–31*. Geneva, 1931. 292 pp., maps. (World Peace Foundation, Boston, American distributor.)

— — *The course and phases of the world economic depression*. Geneva, 1931. 337 pp., charts. (World Peace Foundation, Boston, American Distributor.)

The eleventh assembly of the League of Nations adopted a resolution calling for "a study of the course and phases of the present depression and the circumstances which led up to it." This volume presents the results of this study, giving an analysis of the present depression and comparisons with earlier depressions, together with a review of conditions since the World War.

NEW ZEALAND.—Department of Labor. *Report [for the financial year April 1, 1930, to March 31, 1931]*. Wellington, 1931. 22 pp.

Data on unemployment relief work, taken from this report, are published in this issue of the Labor Review.

— Pensions Department. *Thirty-third annual report, for the year ended March 31, 1931*. Wellington, 1931. 5 pp.

Statistics on family allowances, from this report, are published in this issue.

ONTARIO (CANADA).—Workmen's Compensation Board. *Report for 1930. Toronto, 1931. 73 pp.*

Reviewed in this issue.

POLAND.—Bureau of Statistics. *Concise statistical yearbook of Poland, 1931. Warsaw, 1931. 157 pp., maps. (In English.)*

The subjects covered include employment and unemployment, wages and earnings, family budgets, industrial disputes, social insurance, labor unions, welfare work, prices, production, etc.

QUEENSLAND (AUSTRALIA).—Registrar-General's Office. Statistical Branch. *A B C of Queensland and Australian statistics, 1931. Brisbane, 1931. 312 pp.*

SWEDEN.—[Socialdepartementet.] Statistiska Centralbyrån. *Statistisk årsbok, 1931. Stockholm, 1931. 408 pp.*

Contains statistical information on production, prices and cost of living, cooperation, housing, employment service, unemployment, industrial disputes, trade agreements, wages, social insurance, child protection, etc., in Sweden. Some of the data given in the volume are brought down to early 1931 but the greater part of the information is for 1929 or 1930 and earlier years.

SWITZERLAND.—Bureau Fédéral de Statistique. *Annuaire statistique de la Suisse, 1930. Bern, 1931. 378 pp., charts.*

Includes statistics on cost of living, earnings of workers injured in industrial accidents, social insurance, etc.

— Office Fédéral des Assurances Sociales. [*Report for the year 1930. (Berne, 1931?)*] 26 pp. (*Section du Rapport du Conseil fédéral sur sa gestion en 1930.*)

This report covers the operation of the Swiss Federal Insurance Office for the year 1930. The types of insurance covered include sickness, accident, and old age. In addition to the statistical report there is, also, a list of the laws and ordinances passed during the year by the different Cantons and communes relating to compulsory sickness insurance.

UNION OF SOUTH AFRICA.—Office of Census and Statistics. *Special Report Series, No. 78: Fifteenth industrial census, 1929-30 (preliminary report). Pretoria, 1931. 13 pp. (Mimeographed.)*

VICTORIA (AUSTRALIA).—Government Statist. *Fifty-third annual report on friendly societies, relating to the 12 months ended June 30, 1930. Melbourne, 1931. xv, 20 pp.; Supplement, 9 pp., mimeographed.*

VIENNA (AUSTRIA).—Kammer für Arbeiter und Angestellte. *Handbuch der Frauenarbeit in Österreich. Vienna, 1930. 674 pp., illus.*

This handbook on the work of women in Austria includes information on the industrial efficiency movement, women's health, family relations, legal protection of woman workers, women in labor unions, women in civil service, salaried woman employees, young woman workers, etc.

### Unofficial

ALLGEMEINER DEUTSCHER GEWERKSCHAFTSBUND. *Die 40 Stunden-Woche, edited by Theodor Leipart. Berlin, 1931. 224 pp.*

Contains articles by various authors relating to the unemployment problem in Germany, with special emphasis upon the 40-hour work week as a measure against unemployment.

— *Jahrbuch, 1930. Berlin, 1931. 389 pp.*

This yearbook of the German Federation of Labor contains a report on the status and the activities of the federation during 1930, and includes information on employment service, social insurance, labor protection, industrial hygiene, labor legislation, popular education, hours of labor, wage movement, trade agreements, vocational guidance and training, and labor unions (their membership, finances, etc.).



AMERICAN ASSOCIATION FOR ADULT EDUCATION. *Unemployment and adult education—a symposium.* New York, 60 E. 42d Street, 1931. 63 pp.

The authors of the papers included in this volume constitute a representative group of the qualified economists in this country who have studied the question of technological unemployment.

BLOCH, LOUIS. *Labor agreements in coal mines.* New York, Russell Sage Foundation, 1931. 513 pp.

"Wage earners' participation in management" is the general title under which the department of industrial studies of the Russell Sage Foundation is carrying forward a series of investigations of new experiments in the organization of relations between employers and employees. This volume is a study of collective bargaining between miners and operators in the soft-coal industry in Illinois, covering a period of 30 years.

BUREAU OF RAILWAY NEWS AND STATISTICS. *Railway statistics of the United States of America for the year ended December 31, 1930.* Chicago, 1931. 143 pp., map, charts.

CALIFORNIA STATE CHAMBER OF COMMERCE. *Employment stabilization program.* San Francisco, Ferry Building, 1931. [Various paging, mimeographed.] Charts.

Reviewed in this issue.

CENTRAL EMPLOYMENT BUREAU FOR WOMEN AND STUDENTS' CAREERS ASSOCIATION (INC.). *Careers and vocational training: A guide to the professions and occupations of educated women and girls.* London, Women's Employment Publishing Co. (Ltd.), [1931]. 341 pp.

CHAMBER OF COMMERCE OF THE UNITED STATES. Committee on Continuity of Business and Employment. *Report.* Washington, October, 1931. [Various paging.]

The stabilization measures proposed in the report are summarized in this issue of the Labor Review.

CHASE, STUART. *Out of the depression—and after; a prophecy.* New York, John Day Co., 1931. 27 pp.

DEPASSE, CH., AND ANDRÉ, A. *L'Organisation des loisirs du travailleur en Belgique et à l'étranger.* Brussels, Éditions "Labor," [no date]. 333 pp.

A report upon the utilization of the leisure time secured through the shorter working-day in Belgium and several other countries. The report covers the activities of governmental and private agencies in providing educational, recreational, and other features for the use of workers in their spare time, and an account of the institutions concerned in the promotion of these activities.

DIGARD, HENRI. *Les assurances sociales et l'agriculture.* Paris, Librairie du Recueil Sirey, 1931. 106 pp.

A discussion of the French social insurance law with particular reference to the difficulty of its adaptation to agriculture.

DUBLIN, LOUIS I., AND BERRIDGE, WILLIAM A. *The need for a new survey of family budgets and buying habits—two points of view.* New York, Metropolitan Life Insurance Co. Press, 1931. 22 pp., charts.

Reviewed in this issue.

EARLE, F. M. *Methods of choosing a career.* London, George G. Harrap & Co. (Ltd.), 1931. 334 pp.

A study of the value of vocational guidance for children leaving elementary schools at from 13 to 14 years of age, carried out by members of the research staff of the National Institute of Industrial Psychology.

ERNST, MORRIS L. *America's primer.* New York, G. P. Putnam's Sons, 1931. 158 pp., illus.

HARMAJA, LEO. *Economic progress in Finland after the Great War. Reprint from "Unitas," August, 1931, a quarterly review of the Ab Nordiska Föreningsbanken (Helsingfors?), Finland. 11 pp.*

Contains a descriptive account of the economic developments in Finland in comparison with the Scandinavian countries, Sweden, Norway, and Denmark, since the World War up to 1927.

HEYMANN, GEORGES. *La généralisation des allocations familiales en Belgique. Louvain, la Société d'Études Morales, Sociales et Juridiques, 1931. 298 pp.*

Commentary on the law of August 4, 1930, generalizing family allowances in Belgium.

INDIANAPOLIS EMPLOYMENT BUREAU. Committee on the General Problem of Unemployment. *Involuntary unemployment. Indianapolis, Ind., 1930. 14 pp.*

An adequate employment-exchange service and further investigation into unemployment problems are recommended.

INTERNATIONAL CHAMBER OF COMMERCE. *Brochure No. 78: Proceedings of the Washington congress, May, 1931. Paris, 1931. 121 pp.*

The group meetings reported in this volume, which dealt more specifically with subjects of special interest to labor, were that of the morning of May 6 on problems of production and employment, that of the afternoon of May 7 on employment and wages, and that of the afternoon of May 8 on industrial problems.

— Europe-United States Committee. *Vol. 1: Address by the chairman [to the Washington congress, held in May, 1931.] 23 pp. Vol. 2: Development of trade and capital, their distribution and competitive conditions between the two areas since 1900. 385 pp. Vol. 3: Comparison of the characteristic aspects of production in Europe and the United States of America. 167 pp., diagrams. Vol. 4: Economic relations between Europe and the United States of America in the field of agriculture. 31 pp. Vol. 5: Trends in the organization and methods of distribution in the two areas. 164 pp., maps, charts. Vol. 6: Economic crises; unemployment. 73 pp. Vol. 7: Psychological elements. 24 pp. Paris, 1931.*

The series of studies contained in volumes 2 to 7 were presented to the congress of the International Chamber of Commerce, held in Washington in May, 1931.

INTERNATIONAL FEDERATION FOR HOUSING AND TOWN PLANNING. *XIII International Housing and Town Planning Congress, Berlin, 1931. London, 1931. 410, 54 pp., plans, charts, illus. (In two parts.)*

JEWISH AGENCY AND THE GENERAL FEDERATION OF LABOR IN PALESTINE. *Departments of Statistics. Report and general abstracts of the census of labor taken in 1930. 16 pp., 2 folders, charts.*

Data on wages and hours of labor in Palestine, taken from this pamphlet, are published in this issue of the Labor Review.

LAIDLER, HARRY W. *Concentration of control in American industry. New York, Thomas Y. Crowell Co., 1931. 501 pp.*

LESCOHIER, DON D., and PETERSON, FLORENCE. *The alleviation of unemployment in Wisconsin. Madison, Wis., Industrial Commission, 1931. 139 pp.*

Reviewed in this issue.

LHOUMEAU, HÉLÈNE. *La condition juridique des salariés intellectuels. Paris, Les Presses Universitaires de France, [no date]. 242 pp.*

A discussion of the laws affecting intellectual workers in France. The subjects covered are the labor contract and regulation of labor conditions, professional organizations and labor conflicts of intellectual workers, and the national and international labor organizations and their relation to intellectual workers.

LINDNER, E. *Die Wirtschaftsräte in Europa*. Berlin, E. S. Mittler & Sohn, 1931. 55 pp.

Contains a short review of the economic councils in 19 European countries, namely: Belgium, Czechoslovakia, England, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Luxemburg, Poland, Portugal, Rumania, Russia (Soviet), Spain, Turkey, and Yugoslavia.

NEUMANN, FRANZ. *Tarifrecht auf der Grundlage der Rechtsprechung des Reichsarbeitsgerichts*. Berlin, Deutscher Bauergewerksbund, 1931. 147 pp.

Contains an analysis and interpretation of the laws relating to wage agreements, on the basis of the decisions by the Federal labor courts, in Germany.

NEWMAN, GEORGE. *Health and social evolution*. London, George Allen & Unwin (Ltd.), 1931. 200 pp. (Halley Stewart Lectures, 1930.)

These lectures include a historical summary of the early attempts at disease control in England, the contribution of the eighteenth century to the solution of the problem, health problems of the modern period, modern collective humanism at work, and gains and losses in national health.

PAN-PACIFIC WOMEN'S CONFERENCE. *Proceedings of the second conference, held in Honolulu, August 9-22, 1930*. Honolulu, Pan-Pacific Union, 1930. 395 pp.

Apart from the more general addresses, papers and forum reports were presented dealing with education, the cinema, home economics, government, health, industry, and social service.

PERSONNEL RESEARCH FEDERATION AND SOCIAL SCIENCE RESEARCH COUNCIL. *Effects of part time and lay off; the need for research during industrial depression*. Report of conference of March 21 and 22, 1931. New York, 230 Park Ave., 1931. 46 pp. (Mimeographed.)

In this report are printed informal discussions of what studies of part-time employment and lay off are needed, what information should be sought, what investigations in progress will furnish such information, what procedure is best for securing information, and what steps should be taken to initiate new studies.

PETIT, JULIEN. *Le chômage en Grande-Bretagne*. Paris, Librairie Generale de Droit et de Jurisprudence, 1931. 240 pp., charts.

A study of unemployment in Great Britain, with special reference to the influence of social legislation, more particularly of the unemployment insurance system. The author holds that these measures have handicapped the adjustment of industry to the postwar situation by enabling the workers to resist a lowering of the wage level more obstinately than would otherwise have been possible.

PROSPECT UNION EDUCATIONAL EXCHANGE. *Catalogue No. 9, 1931-1932*. Educational opportunities of Greater Boston for working men and women. Cambridge, 760 Massachusetts Avenue, 1931. 152 pp.

RICHARDSON, J. H. *Economic disarmament: A study on international cooperation*. London, George Allen & Unwin (Ltd.), 1931. 224 pp.

The author holds that peace among the nations depends as much upon economic as upon military, naval, and aerial disarmament. Economic disarmament depends upon international cooperation upon a number of questions which now tend to produce friction between different countries. The author considers especially the question of tariffs and other hindrances to free international trade, the international organization of production and trade, international regulation of labor standards, and measures for securing monetary stability.

ROBSON, A. H. *The education of children engaged in industry in England, 1833-1876*. London, Kegan Paul, Trench, Trubner & Co. (Ltd.), 1931. 240 pp.

Traces the growth of legislative requirements as to the education of children in England as illustrating the thesis that these were based on a desire to save the children from premature and exhausting labor, rather than on a belief in the abstract advantages of education.



SAND, RENÉ. *Le service social a travers le monde—assistance, prévoyance, hygiène.* Paris, Librairie Armand Colin, 1931. 250 pp.

An account of organized social service in different countries, including poor relief and other assistance, social insurance, and public health and sanitation.

SCHÜTZ, GÉZA. *La situation matérielle des classes laborieuses en Hongrie avant la guerre (1890-1913).* Menton, Imprimerie Mentonnaise, 1930. 163 pp.

Deals with the economic conditions of laboring classes in Hungary before the World War (1890-1913), including chapters on general economic conditions in Hungary, on her agricultural character, wages in agricultural and manufacturing occupations, cost of living, housing, labor legislation, emigration, etc.

SLICHTER, SUMNER H. *Modern economic society.* New York, Henry Holt & Co., 1931. 909 pp., diagrams.

This book, as stated in the preface, represents an effort to reduce the lag between the specialized and monographic work and the more generalized descriptions of our industrial system, and is the culmination of a number of years' work and several preliminary editions. All but the last several chapters, the author states, have been in use at Cornell University in substantially the present form for a number of years.

SOCIÉTÉ DE LÉGISLATION COMPARÉE. *Annuaire de législation française des principales lois votées en France en 1928.* Paris, 1929. 370 pp.

— *Annuaire de législation française des principales lois votées en France en 1929.* Paris, 1930. 231 pp.

These volumes contain the texts of the principal laws enacted in France in 1928 and 1929 with commentaries.

SWEDEN YEARBOOK, 1931. Stockholm, Almquist & Wiksell Co. (Ltd.), 1931. 317 pp., maps, illus. (In English.)

Contains descriptive and statistical information in regard to Sweden, including chapters on industrial and economic life and social conditions, such as relations between employers and workers, employment and unemployment, social insurance and public relief, cooperation, etc.

SWOPE, GERARD. *Stabilization of industry. An address delivered before the National Electrical Manufacturers Association, New York City, September 16, 1931.* 15 pp.

Reproduced in this issue.

WELFARE COUNCIL OF NEW YORK CITY. Research Bureau. *Study 3: A guide to statistics of social welfare in New York City, by Florence Dubois.* New York, 1930. 313 pp.

Compiled to promote the use of existing authentic statistical information relating to the welfare of the people of New York City and to indicate the extent of the statistical data on each phase of social welfare.

